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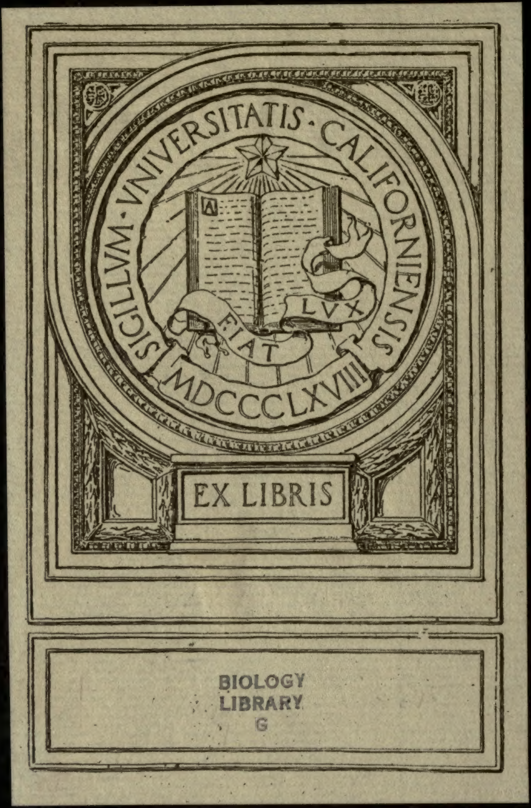
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# THE FAUNA OF BRITISH INDIA,

INCLUDING

# CEYLON AND BURMA.

*Published under the authority of the Secretary of State for India in Council.*

EDITED BY W. T. BLANFORD.

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## BIRDS.—Vol. I.

BY

EUGENE W. OATES.

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# PREFACE.

THIS volume is the third of the series belonging to the 'Fauna of British India' that has been published in the course of the present year. Of the two preceding volumes, containing the 'Fishes,' the first appeared in July and the second in September.

Birds, which form the subject of the present volume, and which it is proposed to complete in two more, are not only the most familiar and, in many respects, the most interesting class of the Vertebrata, but they are in India represented by the largest number of known species.

The hope expressed, in the Introduction to the 'Mammalia' of the present series, that Mr. Oates would undertake the 'Birds,' has been fulfilled, and I think that Indian ornithologists are to be congratulated on the fact. Had not Mr. Oates come from India and devoted his furlough to the task, much delay would have been caused and the work, in all likelihood, much less completely executed, as I should

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probably have been compelled to write the greater part, if not the whole, myself.

The number of species of birds to be described in the three volumes, of which this is the first, exceeds those enumerated in Jerdon's 'Birds of India' by more than one-half, chiefly because Jerdon omitted the species inhabiting Ceylon, Sind west of the Indus, the Western Punjab, Hazára, the Upper Indus valley north and north-west of Kashmir, Assam, Burma and the intermediate countries (such as the Gáro, Khási, and Nága hills, Chittagong, Sylhet, Cachar, and Manipur), together with the Andaman and Nicobar Islands, all of which are comprised within the limits of British India as accepted in the present publication. A large number of additional species have also been recorded, since Jerdon's work was published, from Sind, the Punjab, the North-western Provinces, Rajputana, and the Western Himalayas, the fauna of all of which has become better known within the last 25 years. The additional species from the Peninsula are far less numerous.

No branch of Zoology has, in India, attracted so much attention or enlisted the services of so many observers as Ornithology; and there is probably no division of Indian biological science, not even Botany, on which so much has been written and of which our present knowledge is so far advanced. Far more is known about the nomenclature, distribution, and habits of birds than about those of mammals, reptiles, or fishes. Within the last ten years some good local faunas have been written, foremost amongst these being Legge's 'Birds of Ceylon' and Oates's 'Birds of Burmah.' A periodical work with the somewhat eccentric title of 'Stray Feathers,' devoted entirely to Ornithology, flourished for several years under the energetic guidance of Mr. Allan Hume, and within the last 18 months a valuable addition has been made to the volumes already published. But, above all, Mr. Hume brought together, chiefly in about ten years (from 1872 to 1882), a collection of Indian birds from all parts of the country far superior to any ever before accumulated; indeed it is doubtful whether an equally complete collection has ever before been made, from a similar area, in any branch of Zoology or Botany. The whole of this collection, amounting to 60,000 skins, besides a very large number of nests and eggs, has now been presented by Mr. Hume to the British Museum; and as the same building contains the collections of Colonel Sykes, the Marquis of Tweeddale (Viscount Walden), Mr. Gould, and, above all, of Mr. Hodgson, the opportunities now offered for the study of Indian birds in London are far superior to those that have ever been presented to students in India. Every facility has been afforded to Mr. Oates by the officers of the British Museum for studying the superb series of Indian birds now in the National Collection.

It must be left to naturalists in India to judge how far Mr. Oates has succeeded in accomplishing the task that he has undertaken. This task, though greatly facilitated by the collected specimens and information, is still far from easy; for, in works like the present, it is not sufficient to have access to the necessary data, the facts known require to be so arranged as to be easily understood and available for ready reference. If the present work complies with these conditions, it is to be hoped that the study of Ornithology not only in India, but throughout the Oriental Region, may benefit as much as it unquestionably did by the appearance of Jerdon's 'Birds of India.'

In one respect the volume now published falls short of the work just named. The limits assigned to the number and size of the volumes in the 'Fauna of British India,'—limits in the necessity for which, much as I regret their existence, I am obliged to concur—have precluded the addition of any save the very briefest notes on habits, migration, folk-lore, and other interesting points, the inclusion of which in Jerdon's work added so greatly to its attraction.

On the other hand, the classification adopted by Jerdon was obsolete even when he wrote, and was in many respects inferior to that employed by Blyth, thirteen years previously, in his 'Catalogue of the Birds in the Museum of the Asiatic Society' (Calcutta). Unfortunately this faulty classification of Jerdon's has become so closely associated with the Indian Ornithology of the last quarter of a century, partly from the general use of Jerdon's work as a text-book, partly from the employment of his serial numbers, with interpolated additions, in all Mr. Hume's writings, that many Indian ornithologists are probably unacquainted with the important additions to our knowledge of bird-classification made by Huxley, Garrod, Forbes, and other writers, and, it may be feared, will not welcome the changes that have become necessary. It may be hoped that the facilities for the determination of specimens afforded in the present work by the generic and specific keys and by the woodcuts will serve to mitigate the regrets of those who are attached to the old system of classification.

The arrangement of the families of Acromyodian Passeres proposed in this volume is new, and partly based on a character of unquestionable value as evidence of relationship—the plumage of the young birds. The subdivision of the Passeres has long been one of the great difficulties of ornithologists, and one who had devoted much time and thought to the subject, the late W. A. Forbes, was accustomed to say that the whole order consisted of a single family. In all probability the difficulty of subdividing the order will never be completely solved, the fact being that the Passeres are a group of animals of comparatively recent geological origin, still in course of development, and that in the Passerine series no breaks have yet been established by the dying out of intermediate forms, as has taken place in orders that have survived greater geological changes.

In one respect a difference may perhaps be traced between the classification employed in this volume for birds and that applied in the 'Fauna of British India' to other classes of Vertebrata. The number of genera accepted or proposed by Mr. Oates is larger in proportion than that adopted in the Mammals, Reptiles, and Fishes. Personally I should have preferred a reduction in the generic divisions of birds; but, at the same time, I regard the question as one of convenience, there being, so far as I can see, no essential distinction between generic and specific characters. Many of the so-called "structural distinctions" in birds, such as the arrangement of the feathers at the base of the bill and the development of a crest, are probably purely ornamental, and, like the colours of the plumage, connected with sexual selection; and I cannot see why the differences mentioned are of higher importance than colour. It is, however, only fair to say that many of the best ornithologists hold the same views as Mr. Oates. It is also only just to add that I believe this is the only detail of classification in which I see any reason for differing with him.

An account of the chief writers on Indian birds up to 1862 was given by Dr. Jerdon in the Introduction to the first volume of the 'Birds of India'; the principal authors enumerated, besides Jerdon himself, were Franklin, Tickell, Sykes, M'Clelland, Burgess, Adams, Tytler, Kelaart, Layard, Hutton, Theobald, and, above all, Hodgson and Blyth, to whom, with Jerdon, may fairly be attributed the foundation of Indian ornithology. A general notice of those who had principally been engaged in working out the birds of the Asiatic continent and islands was included by Mr. R. B. Sharpe in his Introduction to Gould's 'Birds of Asia.' This "Introduction" was reprinted in 'The Ibis' for 1884, p. 49. Amongst the contributions to the ornithology of India since the appearance of Jerdon's 'Birds of India' some of the principal are:—(1) Blyth's commentary on Jerdon in 'The Ibis' for 1866 and 1867, his ornithology of Ceylon (Ibis, 1867), and his posthumous list of the Birds of Burma, published, with additions by Viscount Walden, as an extra number to the Journal of the Asiatic Society of Bengal for 1875; (2) Jerdon's supplementary notes (Ibis, 1871 and 1872); (3) papers by the Marquis of Tweeddale (Viscount Walden), Major Wardlaw Ramsay, Colonel J. Biddulph, and Messrs. A. Anderson, H. J. Elwes, R. C. Beavan, J. Scully, and R. B. Sharpe in 'The Ibis' and the 'Proceedings' of the Zoological Society; (4) contributions by F. Stoliczka, H. H. Godwin-Austen, W. E. Brooks, V. Ball, G. King, A. C. McMaster, and the present writer to the Journal and Proceedings of the Asiatic Society of Bengal; (5) Hume's 'Scrap Book,' 'Nests and Eggs,' 'Lahore to Yarkand' (in part by Dr. Henderson), and 'Game Birds' (written in conjunction with Colonels C. H. T. and G. F. L. Marshall); (6) Legge's 'Birds of Ceylon,' Oates's 'Birds of Burmah,' J. Anderson's 'Zoological Results of the Yunnan Expeditions,' Barnes's 'Birds of Bombay,' Murray's 'Vertebrate Zoology of Sind' and 'Avifauna of British India;' and above all (7) the eleven volumes of 'Stray Feathers.' Of all the pages in the latter the larger number are by Mr. Hume himself, the other more important Indian contributors being Messrs. R. M. Adam, J. Aitken, A. Anderson, J. Armstrong, V. Ball, H. E. Barnes, C. T. Bingham, W. E. Brooks, E. A. Butler, Cock, J. R. Cripps, J. Davidson and Wenden, W. Davison, S. B. Doig, S. B. Fairbank, J. A. Gammie, J. Inglis, W. V. Legge, C. H. T.

and G. F. L. Marshall, E. W. Oates, G. Reid, J. Scully, and G. W. Vidal; there are also some papers from European ornithologists, especially Messrs. R. B. Sharpe and J. H. Gurney. An important aid to ornithology in general has been furnished by the British Museum Catalogue of Birds, written by Messrs. R. B. Sharpe, by whom the greater part has been contributed, H. Seebohm, H. Gadow, and P. L. Sclater. Some valuable contributions to the ornithology of Burma, founded on the collections made by Mr. Fea, have lately been published by Count T. Salvadori in the 'Annali del Museo Civico, Genoa.'

Hitherto the progress of Indian ornithology may be divided into two periods; the first of which, ending with the publication of Jerdon's work, was especially signalized by the labours of Hodgson, Jerdon, and Blyth, whilst in the more recent period the dominant figure has been Mr. Hume.

The addition to the present work of any anatomical details beyond those that are essential for classification would involve too great a demand upon the limited space available. An excellent sketch by Prof. W. K. Parker will be found in the last (ninth) edition of the 'Encyclopædia Britannica,' under the article "Birds" (vol. iii, p. 699). A general account of the osteology by Mr. R. Lydekker was published at the beginning of the eighth volume of 'Stray Feathers.' For more complete descriptions the student may turn to Bronn's 'Klassen und Ordnungen des Thier-reichs; Aves,' by Selenka and Gadow. Numerous details will also be found in papers by Garrod and Forbes in the 'Proceedings' of the Zoological Society; and a work in two large quarto volumes, by M. Fürbringer, has recently been published in Amsterdam. A diagram showing the terms applied to parts of the plumage will be found on page xi.

The division of the class Aves into orders will be discussed by Mr. Oates in the third volume, and a list of the works referred to in the synonymy will be added at the same time. The author will defer to the same opportunity any general remarks which he may find necessary.

With the present volume half of the proposed work on the Vertebrate Fauna of British India is completed, three and a half volumes having now appeared out of seven. Of the remaining volumes, one on Reptilia and Batrachia, by Mr. G. A. Boulenger, is ready for the press, and will be the next for publication, and it is hoped that a second volume of Birds and perhaps the remaining half-volume of Mammals will also be published in the course of 1890.

W. T. BLANFORD.

December, 1889.

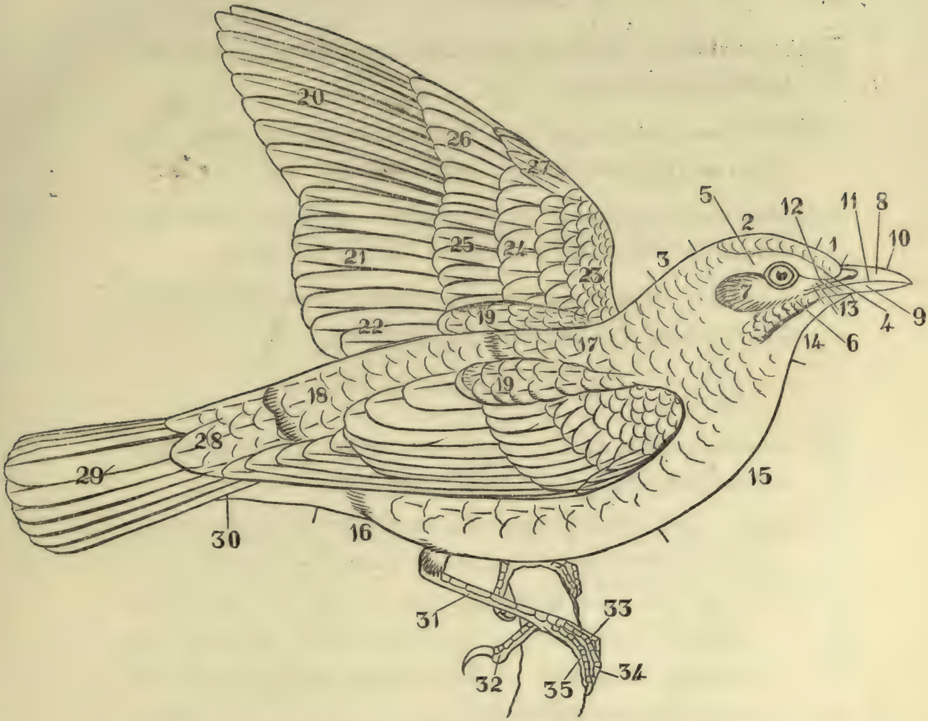

Diagram of a Bird, to illustrate the terminology of the plumage and limbs.

1. Forehead.
2. Crown.
3. Nape or occiput.
4. Lores (space in front of eye).
5. Supercilium.
6. Cheeks.
7. Ear-coverts.
8. Upper mandible or maxilla.
9. Lower mandible.
10. Culmen or upper profile of maxilla.
11. Commissure or line of junction of the two mandibles.
12. Rictal bristles or vibrissæ.
13. Chin.
14. Throat.
15. Breast.
16. Abdomen.
17. Back.
18. Rump.
19. Scapulars.
20. Primaries (the earlier or outermost 9 or 10 quills of the wing).
21. Secondaries (wing-quills springing from the radius and ulna).
22. Tertiaries.
23. Lesser wing-coverts.
24. Median wing-coverts.
25. Greater wing-coverts.
26. Primary wing-coverts.
27. Winglet or bastard-wing.
28. Upper tail-coverts.
29. Tail-feathers or rectrices.
30. Under tail-coverts.
31. Tarsus.
32. Hind toe or first toe or hallux.
33. Inner or second toe.
34. Middle or third toe.
35. Outer or fourth toe.

Flanks or sides of body are the parts approximately covered by the closed wing.

Axillaries are the lengthened feathers springing from the axilla or region beneath the base of the wing.

Supplementary bristles or hairs are those springing from the side of the forehead in front of the rictal bristles.

Naral bristles or hairs are those springing from the front of the forehead and covering the nostrils.

The measurements in this work are invariably in English inches and decimals, and are taken thus:—

*Length.*—The distance from the tip of the bill to the tip of the longest tail-feather, unless otherwise stated.

*Tail.*—The distance from the root of the tail, generally indicated both in the fresh and dried state by the presence of a piece of flesh on the underside, to the tip of the longest feather.

*Wing.*—The greatest distance from the bend of the wing to the tip of the longest primary, measured straight. When the wing is curved, it is flattened out for the purpose of measurement.

*Tarsus.*—The distance from the centre of articulation of the tarsus with the tibia to the base of the middle toe.

*Bill.*—The distance from the angle of the gape to the tip, measured straight.

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# AVES.

Birds are warm-blooded vertebrate animals, oviparous, and covered with feathers. The anterior limbs are modified into wings. The skull articulates with the vertebral column by a single occipital condyle, and the jaw is connected with the skull by the intervention of a quadrate bone. The heart consists of four chambers, two auricles and two ventricles, and the right and left sides are completely separated from one another. There is only one aortic arch, the right.

It is usual to divide all living birds into two great subclasses, which are diagnosed from each other by the shape of the sternum. In one subclass, the *Carinatæ*, the sternum is typically provided with a keel; in the other, the *Ratitæ*, the keel of the sternum is absent.

Although this primary division of birds is convenient in many ways, yet there are exceptions to its application which render a classification based on the shape of the sternum of doubtful utility. Some birds which from other points of view are undoubtedly *Carinatæ* have the keel of the sternum little, if at all, developed.

I prefer therefore to divide birds at once into groups which I shall term Orders, and in doing so I shall avail myself of the recent studies of Mr. Seebohm. This gentleman, partly by independent osteological investigations of his own, and partly by utilizing the discoveries of other workers in the same or similar fields, has, without disturbing the usually accepted classification of birds to any great degree, arrived at an arrangement which possesses the merit of being precise and clear, so far as the materials at his disposal have enabled him to be so. He has, moreover, diagnosed the different Orders by characters which the least skilful can easily investigate and discover for themselves.

Mr. Seebohm divides birds into several large groups which he terms Orders, and these again into suborders which are equal to the groups which I, in accordance with the usual practice, prefer to call Orders. I do not propose to treat of the distinctions between the different Orders here, but to deal with them at the end of this work, as I gather from Mr. Seebohm that he contemplates a revision of them. The period of two years which, moreover, must elapse before the present work is completed cannot fail to be productive of much additional information and improvement with respect to the classification of birds.

# Order I. PASSERES.

The deep plantar tendons passerine; palate ægithognathous.

The above two characters in combination suffice to separate a passerine bird from all others.

The deep plantar tendons are the muscles which run down the leg of a bird and move the toes. There are several types or forms of these muscles. The late Professor Garrod thus writes about them:—

"In birds generally, whatever the number of their toes, there are two muscles whose fleshy bellies are situated in the leg proper (that is, between the knee and the ankle), deep, and just behind the tibia. These muscles arise, one from almost the whole of the posterior surface of the tibia and from the fibula, in a bipenniform manner, and the other from the inferior surface of the horizontal femur just behind the outer genual articular condyle. The former is termed the *flexor perforans digitorum pedis*, because its terminal tendons perforate those of the more superficial flexors on their way to the ungual phalanges of their respective toes; and the latter is termed the *flexor longus hallucis*, because there is generally a shorter muscle to the same digit.

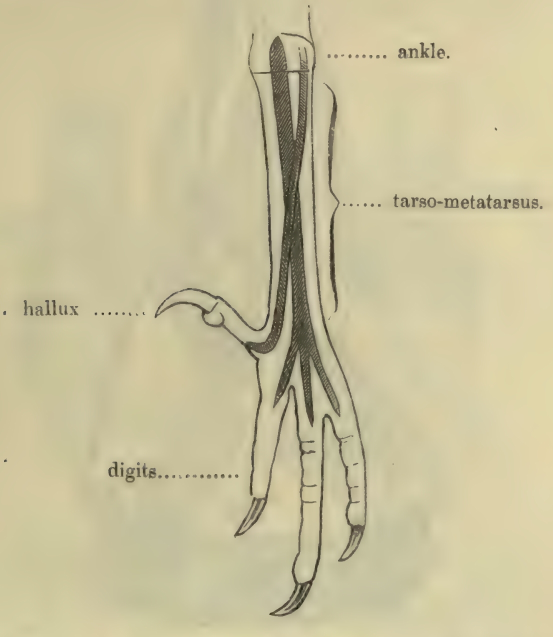
"These two muscles descend to the ankle (the joint between the tibio-tarsus and the tarso-metatarsus) side by side; they run behind it, in the fibro-cartilaginous or osseous mass which, in birds, is always found at the posterior part of the upper end of the tarso-metatarse, in two canals, deeper than any of the other flexor tendons; and in these canals there is always a definite relation between them. Sometimes the tendons are side by side; and then it is always that of the *flexor longus hallucis* which is the external of the two, the osseous vertical ridge, which is nearly always seen in the dry bone, separating them. Sometimes, however, one is superficial or, in other words, posterior to the other. When this is the case, it is always the *flexor perforans digitorum* which is the deeper. In the Swifts, for instance, the *flexor longus hallucis* quite covers the *flexor perforans digitorum*; but in most Parrots, as may be seen by the disposition of the osseous canals in the dry tarso-metatarse, that for the former muscle is external as well as superficial, only partially covering it.

"These relations are constant, and must be always borne in mind in all attempts to identify the muscles. From these it can be inferred, as is verified by dissection, that the tendon of the *flexor longus hallucis* crosses its companion superficially on its way from the ankle to its insertion in the hallux.

"Just before, or just at the commencement of, the sole of the bird's foot (near the joint between the metatarsus and the phalanges) these two tendons generally split up to supply the toes."

The manner in which these tendons serve the toes and their relation to each other, when combined with other characters, are of the greatest service in diagnosing the various orders of birds.

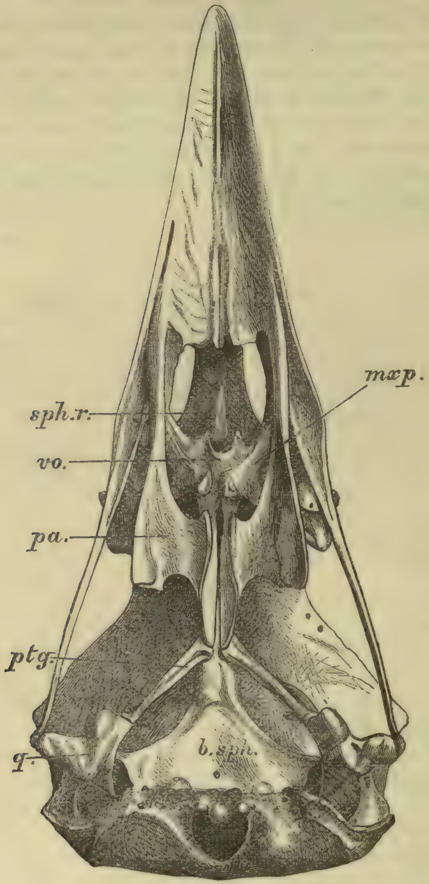
The deep plantar tendons are said to be passerine when the *flexor perforans digitorum* serves the three front toes and the *flexor longus hallucis* serves the hind toe, both tendons being perfectly disconnected in such a manner that the hind toe is separately movable from the front toes. This formation is shown in the accompanying sketch:—



Sketch showing the arrangement of the deep plantar tendons in a passerine bird. (From P. Z. S. 1875, p. 347.)

The determination of the character of the deep plantar tendons in a freshly-killed bird is very easy. In a dried state the tarsus and toes must be macerated in water until soft, when the tendons can be dissected without difficulty.

The palate of a bird is termed ægithognathous when the vomer is broad and blunt and disconnected from the maxillo-palatines, which are separated from each other by a considerable interval. The principal bones in the palate of a bird are shown in the accompanying sketch of the skull of a Raven, which has the palate ægithognathous.



Under view of the skull of a Raven. *vo*, vomer; *mxp*, maxillo-palatine process; *pa*, palatine; *ptg*, pterygoid; *q*, quadrate; *b.sph*, basi-sphenoid; *sph.r*, sphenoidal rostrum.

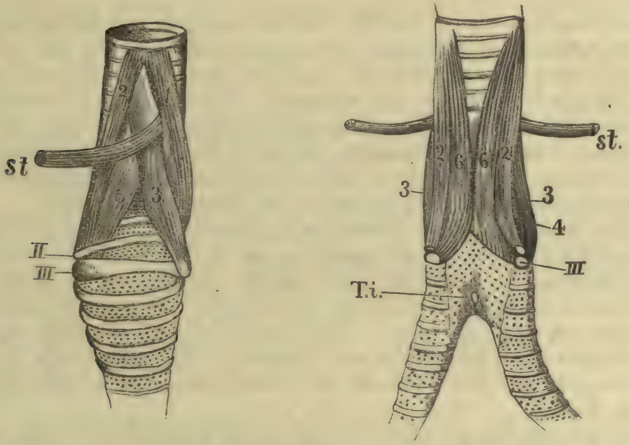
The determination of a passerine bird, as before stated, rests on the association together of the above two characters.

The order Passeres contains about half the total number of living birds, or somewhat more than 6000 species. Of these nearly 1000, or one sixth of the number, are found within the limits of the Indian Empire, either as residents or as seasonal visitors.

The primary division of the Passeres into two large groups is based on the mode of attachment of the muscles of the syrinx, and may be thus expressed:—

| | |
|---|---|
| Birds in which the intrinsic muscles of the syrinx are fixed to the ends of the bronchial semi-rings .................................. | **Acromyodi.** |
| Birds in which the intrinsic muscles of the syrinx are fixed to the middle of the bronchial semi-rings .................................. | **Mesomyodi.** |

The Acromyodi have the muscles of the syrinx complex and consisting of numerous pairs. The Mesomyodi have the muscles simple, consisting in many cases of only one pair.



Syrinx of a Magpie*, showing the Acromyodian attachment of the intrinsic muscles at the ends of the bronchial semi-rings. The left-hand figure is a side view and the right-hand figure a dorsal view of the syrinx. The membranous parts between the bronchial semi-rings and the internal tympaniform membrane are dotted; II, III are the second and third bronchial semi-rings; *T.i*, the internal tympaniform membrane; *st*, the muscle from the side of the trachea to the upper end of the clavicle; 1, 2, 3, 4, 5, 6 the syringeal muscles; there is a 7th, which is hidden by the 6th; the 4th is hidden below and between the 1st, 2nd, and 3rd.

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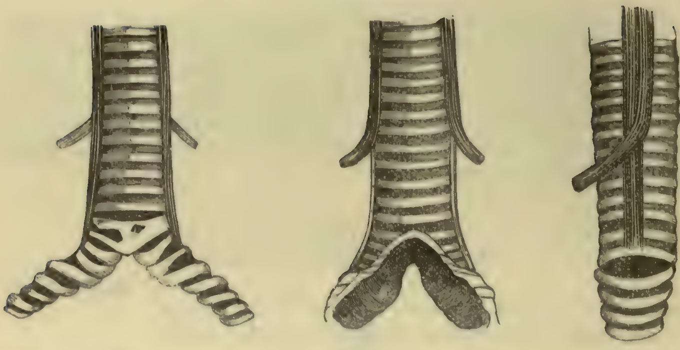
* I am indebted to my friend Dr. Hans Gadow for this original drawing of the syrinx of a Magpie.



Syrinx of *Pitta angolensis* (after Garrod, P. Z. S. 1876, pl. liii), showing the Mesomyodian attachment of the intrinsic muscles at the middle of the bronchial semi-rings. There is only a single pair of bronchial muscles, continued down from the sides of the windpipe, insignificant in size, quite lateral, and terminating by being inserted into the middle of the outer surface of the second bronchial semi-ring.

All the Passeres of the Old World belong to the Acromyodian group with the exception of three small families, viz. the *Philepittidæ* from Madagascar, the *Xenicidæ* from New Zealand, and the *Pittidæ* from India, the Oriental, Æthiopian, and Australian regions. The *Eurylæmidæ*, frequently associated with these Mesomyodian Passeres, I propose to elevate to the rank of an Order.

It follows from the above that all the Indian Passeres, with the exception of the *Pittidæ*, belong to the Acromyodian group.

The Mesomyodi may therefore be dismissed from further consideration with the remark that they are divided into two groups: the *Oligomyodæ*, with the lower end of the trachea unmodified; and the *Tracheophonæ*, with the lower end of the trachea modified to form an organ of voice. The *Pittidæ* fall into the first group, as do also the *Philepittidæ* and *Xenicidæ*. The remainder of the *Oligomyodæ* and the whole of the *Tracheophonæ* occur only in the New World.

No success has attended the efforts of anatomists to subdivide the Acromyodi into two or more groups by internal characters, and no two naturalists agree in the arrangement and extent of the families of this difficult group. In drawing up the annexed scheme of the families that occur in India I have endeavoured to avail myself of those characters which appear to be constant and easy of examination.

A very useful character to be employed in determining the position of a bird is the number of primaries in the wing; but before this can be used with absolute precision, it is necessary to eliminate by other characters those families some of the members of which possess nine primaries and others ten. Such families are the *Dicæidæ* and *Alaudidæ*.

The *Dicæidæ*, without a single exception, possess serrations on the margins of both mandibles for about a third of their length from the tip. These serrations are seldom visible without a lens and a white background, but with these aids they are plainly discernible.

The *Alaudidæ* differ from all the other Acromyodi in having the hinder part of the tarsus scutellated or divided transversely into shields or scales. The ordinary bilaminated (longitudinally) and smooth condition of the hind tarsus is shown in fig. 5, p. 18, the tarsus of a Crow; the tarsus of a Lark will be figured in its proper place.

Having eliminated these two families, all the other Acromyodi may be divided into two groups, the one possessing nine primaries and the other ten. There is some difficulty in counting the number of primaries, or quill-feathers attached to the manus, in the wing of a bird; but this can be overcome by the student bearing in mind that, in the Acromyodi, there are ten primaries when the first is rudimentary or notably small and nine when the first is fully formed and reaches nearly, if not quite, to the tip of the wing.

The nine-primaried Passeres of India form three families which are well differentiated.

The ten-primaried Passeres constitute a large assemblage of birds. The *Nectariniidæ* may be divided off by the tubular tongue and the *Ploceidæ* by the position of the nostrils; but the remaining birds form a group which is so homogeneous that it seems impossible to divide them into families by structural characters.

Under these circumstances my attention was drawn to the characteristic plumage of the nestling, and I have found the use of this character highly satisfactory. In the magnificent collection of birds now contained in the British Museum young birds and nestlings are sufficiently represented to render a classification on this basis feasible. The young of some species, however, are wanting in the collection, and these species may not in every case have been relegated to their proper families, but such birds are few.

The nestling plumage of the ten-primaried Passeres seems to be of five types. In the first the nestling resembles the adult female; in the second the nestling resembles the adult female, but is more brightly coloured and generally suffused with yellow; in the third the nestling is cross-barred; in the fourth it is streaked, and in the fifth and last mottled or squamated *.

Before it is possible, therefore, to make use of the annexed scheme of the classification of the families of the Passeres and to place a bird in its proper family, a knowledge of the plumage of the nestling is necessary. This is not so difficult as might at first sight appear. A series of a dozen skins of a species will generally contain a specimen which will furnish some hint as to the plumage of the immature bird. If, in such a series, all the specimens be absolutely alike, sex for sex, then it may be inferred that the young bird resembles the adult. If, on the other hand, one specimen differs from the others in possessing characteristic marks, such as bars, streaks, or mottlings, or in being more brightly coloured than the others, whilst preserving the same pattern of colour, a conclusion may be drawn from such a circumstance sufficient to allow of the species being placed in its appropriate place. It is to be hoped that the student in India when collecting specimens will recognize the importance of securing young birds and thus work out for himself the position and affinities of every species he meets with.

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* Mr. Seebohm, in the fifth volume of the British Museum Catalogue, made use of the character of the plumage in the nestling to separate the *Sylviinæ* from the *Turdinæ*, but restricted the application of this character to the more typical genera.

## *Scheme of Indian Passerine Families.*

- *a*. (*Acromyodi.*) The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings.
  - $a'$. The edges of both the mandibles perfectly smooth, except for the presence of a single notch in many species.
    - $a''$. The hinder part of the tarsus longitudinally bilaminated, the laminæ entire and smooth.
      - $a'''$. Wing with ten primaries; the first notably small.
        - $a^4$. Tongue non-tubular.
          - $a^5$. Nostrils always clear of the line of the forehead; the space between the nostril and the edge of the mandible less than the space between the nostril and culmen.
            - $a^6$. Plumage of the nestling resembling that of the adult female, but paler.
              - $a^7$. Nostrils completely hidden by feathers and bristles .. **Corvidæ**, vol. i.
              - $b^7$. Nostrils bare or merely overhung by a few hairs or plumelets.
                - $a^8$. Rictal bristles always present.
                  - $a^9$. With 12 rectrices.
                    - $a^{10}$. Inner and hind toe equal ............ **Crateropodidæ**, vol. i.
                    - $b^{10}$. Inner and hind toe very unequal .... **Sittidæ**, vol. i.
                  - $b^9$. With 10 rectrices .... **Dicruridæ**, vol. i.
                - $b^8$. Rictal bristles absent .. **Certhiidæ**, vol. i.

$c^7$. Each nostril covered by a single stiff feather ...... **Regulidæ**, vol. i.
$b^6$. Plumage of the nestling resembling that of the adult female but brighter ........ **Sylviidæ**, vol. i.
$c^6$. Plumage of the nestling cross-barred .................. **Laniidæ**, vol. i.
$d^6$. Plumage of the nestling streaked.
$d^7$. With rictal bristles.
$c^8$. First primary quite half the length of second .. **Oriolidæ**, vol. i.
$d^8$. First primary much less than half the length of second ............. **Eulabetidæ**, vol. i.
$e^7$. Without rictal bristles .... **Sturnidæ**, vol. i.
$e^6$. Plumage of the nestling mottled or squamated.
$f^7$. Nostrils more or less covered by hairs .............. **Muscicapidæ**, vol. ii.
$g^7$. Nostrils not covered by any hairs .................. **Turdidæ**, vol. ii.
$b^5$. Nostrils pierced partly within the line of the forehead; the space between the nostril and the edge of the mandible greater than the space between the nostril and the culmen ................ **Ploceidæ**, vol. ii.
$b^4$. Tongue tubular ................. **Nectariniidæ**, vol. ii.
$b'''$. Wing with nine primaries, first and second nearly equal.
$c^4$. Bill flat, broad, and notched; the longest secondaries reaching to the middle of the wing ........ **Hirundinidæ**, vol. ii.
$d^4$. Bill conical, pointed, and entire; the longest secondaries reaching to a point midway between the middle of the wing and the tip.. **Fringillidæ**, vol. ii.
$e^4$. Bill long, slender, and notched; the longest secondaries reaching nearly, or quite, to the tip of the wing ........................ **Motacillidæ**, vol. ii.
$b''$. The hinder part of the tarsus transversely scutellated ................ **Alaudidæ**, vol. ii.
$b'$. Both mandibles finely and evenly serrated on the terminal third of their edges.... **Dicæidæ**, vol. ii.

b. (*Mesomyodi.*) The intrinsic muscles of the syrinx fixed at or near the middle of the bronchial semi-rings .................. **Pittidæ**, vol. ii.

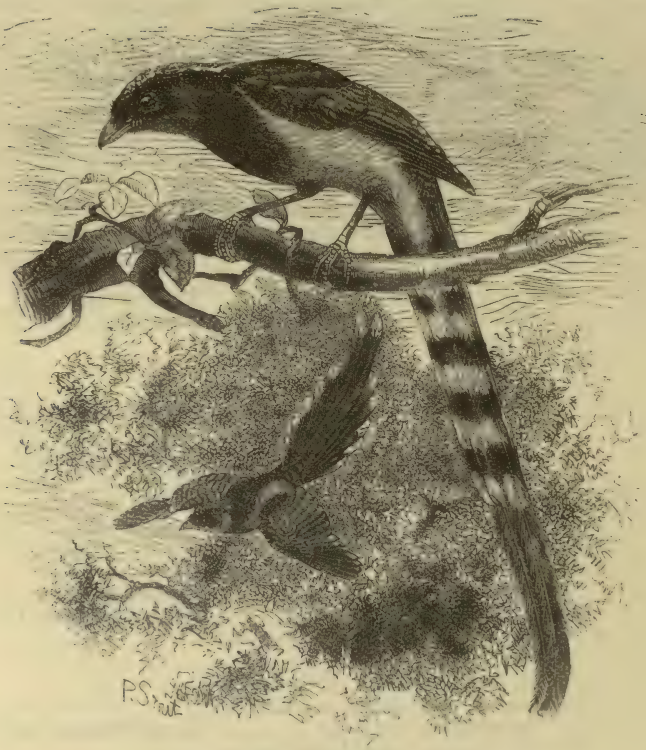

Fig. 1.—*Urocissa occipitalis.*

## Family CORVIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings. The edges of both mandibles smooth, or the upper one simply notched; hinder aspect of tarsus smooth, composed of two entire longitudinal laminæ; wing with ten primaries; tongue non-tubular; nostrils clear of the line of forehead, the lower edge of the nostril nearer to the commissure than the upper edge is to the culmen; plumage of the nestling like that of the adult female, but paler; nostrils hidden by feathers and bristles; rectrices twelve; sexes absolutely alike; an autumn moult only.

The Crows are divided into three subfamilies by the following characters:—

| | |
|---|---|
| The first primary much exceeding half the length of the second; plumage more or less glossy and firm; length of the bill considerably more than its depth . . . . . . | *Corvinæ*, p. 11. |
| The first primary never exceeding half the length of the second and usually much less than half; plumage firm; length of bill considerably more than its depth . | *Parinæ*, p. 45. |
| The first primary much exceeding half the length of the second; plumage very lax and copious; length of bill usually equal to, or less than, its depth, only very occasionally slightly longer . . . . . . . . . . . . . | *Paradoxornithinæ*, p. 60. |

## Subfamily CORVINÆ.

This subfamily contains the Crows, Magpies, Jays, Nutcrackers, and Choughs. All species occurring in India are resident in the Empire except the Rook and the Hooded Crow, which are winter visitors to the North-west. Their summer-quarters are, however, not far off and their migrations are only partial and local. The members of the genus *Corvus*, or the true Crows, are birds of wide distribution, but most of the members of the other genera are restricted to small areas.

The *Corvinæ* vary a good deal *inter se* in structure and habits. In one or two genera the nostrils are not so completely hidden by bristles as in the typical Crows. The majority feed habitually on the ground, others are strictly arboreal. They all agree in laying four or five spotted eggs; but their mode of nidification varies extremely, some species breeding in holes of trees and cliffs, and others, the majority, constructing large nests of sticks and twigs. Most of them are omnivorous, but some of the smaller tropical species appear to confine their diet to insects.

The *Corvinæ*, as a subfamily, have few characters in common, and yet there is no group of birds which is more easily recognized.

### *Key to the Genera.*

| | |
|---|---|
| *a*. Nostrils distant from forehead about one third length of bill; naral bristles rigid and straight, reaching to about middle of bill; or rictal bristles and feathers on front of face altogether absent. | |
| *a*′. Tail much shorter than wing . . . . . . . . . . | CORVUS, p. 12. |
| *b*′. Tail much longer than wing . . . . . . . . . . . | PICA, p. 23. |

*b*. Nostrils distant from forehead less than quarter length of bill; naral bristles or plumes short, never reaching to middle of bill.

*c*′. Tail greatly graduated, the outer feathers much less than half length of tail.

*a*″. Middle tail-feathers of uniform width throughout or widening gradually towards the tip.

*a*‴. Naral bristles spare, curly, and barely concealing nostrils bill red or yellow.

$a^4$. Tail more than twice length of wing; eyelids not wattled ...... UROCISSA, p. 25.

$b^4$. Tail less than twice length of wing; eyelids wattled ............... CISSA, p. 28.

*b*‴. Naral bristles thick, straight and quite concealing the nostrils; bill black .. DENDROCITTA, p. 30.

*b*″. Middle tail-feathers suddenly broader near the tip ..................... CRYPSIRHINA, p. 34.

*d*′. Tail not much graduated; outer feather more than half length of tail.

*c*″. Graduation of closed tail more than length of tarsus; rictal bristles extremely long ...................... PLATYSMURUS, p. 36.

*d*″. Graduation of closed tail less than length of tarsus; rictal bristles moderate or obsolete.

*c*‴. Tarsus very distinctly and coarsely scutellated.

$c^4$. Bill about half length of head, deep and notched .................. GARRULUS, p. 37.

$d^4$. Bill about as long as head, slender, not notched .................. NUCIFRAGA, p. 40.

*d*‴. Tarsus smooth or with indistinct scutellations.

$e^4$. Both mandibles feathered to same extent at base.................. GRACULUS, p. 42.

$f^4$. Lower mandible much less feathered at base than upper............. PYRRHOCORAX, p. 44.

## Genus **CORVUS**, Linn., 1766.

The genus *Corvus* contains the Ravens, Crows, Rooks, and Jackdaws. Nine species are found in India, some of them widely distributed and well known to all, others confined to the Himalayas and the north-west portion of the Empire.

*Corvus* has the plumage black throughout or nearly throughout, and may be recognized by the position of the nostrils, which are placed far forward, about one third the length of the bill from the forehead, and are entirely concealed from view by a multitude of very stiff, straight bristles that reach the middle of the bill. In these characters this genus agrees with the Magpies; but the latter may be separated by the length of the tail, which is very much longer than the wing, and by the shape of the first primary, which is figured on p. 23.

The Crows are as a rule resident, but two species visit India only in the winter.

The Rook forms a partial exception to the general characters given above for determining *Corvus*. Up to nine months of age it has the ordinary stiff bristles over the nostrils, but at that age it casts them all off, as well as the feathers on the front part of the head. Its appearance in this state is well depicted in the figure of the head given on p. 19.

## *Key to the Species.*

*a*. Of larger size; wing always over 15 inches.
  *a*′. Hackles of throat long and distinct; entire plumage glossy black ........ *C. corax*, p. 14.
  *b*′. Hackles of throat short and not distinct or prominent; head, mantle, and lower plumage brown .................. *C. umbrinus*, p. 15.
*b*. Of smaller size; wing rarely reaching or exceeding 14 inches.
  *c*′. Hind neck black like crown.
    *a*″. Lower plumage with little gloss, and this blue or green; bill deeper; face always feathered.
      *a*‴. Plumage intensely black; the feathers of the hind neck firm and glossy, with distinct, glistening shafts ...................... *C. corone*, p. 16.
      *b*‴. Plumage not intensely black; feathers of the hind neck soft and decomposed, almost glossless, and their shafts not distinguishable from the webs .... *C. macrorhynchus*, p. 17.
    *b*″. Lower plumage brilliantly glossy at all ages, the gloss purple and lilac; bill slender; face bare in adults .. *C. frugilegus*, p. 18.
  *d*′. Hind neck grey or ashy, contrasting with the black crown.
    *c*″. Of larger size; wing over 12 inches. *C. cornix*, p. 19.
    *d*″. Of smaller size; wing rarely exceeding 11 inches.
      *c*‴. Chin and throat deep black in contrast with breast; culmen more than 1·6 in. in length and well curved.
        $a^4$. Hind neck and sides of neck typically light grey ........ *C. splendens*, p. 20.
        $b^4$. Hind neck and sides of neck typically dark grey.......... *C. insolens*, p. 21.
      *d*‴. Chin and throat of much the same colour as breast; culmen under 1·3 in., and straight .......... *C. monedula*, p. 22.

### 1. **Corvus corax.** *The Raven.*

Corvus corax, *Linn. Syst. Nat.* i, p. 155 (1766); *Blyth, Cat.* p. 89; *Horsf. & M. Cat.* ii, p. 552; *Jerd. B. I.* ii, p. 293; *Blanf. J. A. S. B.* xli, pt. ii, p. 68; *Sharpe, Cat. B. M.* iii, p. 14; *Hume, Cat.* no. 657; *Oates in Hume's N. & E.* 2nd ed. i, p. 1.

Corvus thibetanus, *Hodgs. A. M. N. H.* (2) iii, p. 203 (1849); *Horsf. & M. Cat.* ii, p. 553; *Jerd. B. I.* ii, p. 294; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 54; *Hume, Cat.* no. 658.

Corvus lawrencii, *Hume, Lah. to Yark.* p. 235 (1873); *id. S. F.* i, p. 205; *Adam, S. F.* i, p. 385; *Hume, N. & E.* p. 408; *Sharpe, Cat. B. M.* iii, p. 15 note; *Hume, S. F.* vii, p. 63; *id. Cat.* no. 657 bis; *Barnes, Birds Bom.* p. 250.

*The European Raven, The Tibet Raven,* Jerd.; *Domkak, Doda,* Hind. in the N.W.; *Kargh,* Candahar.

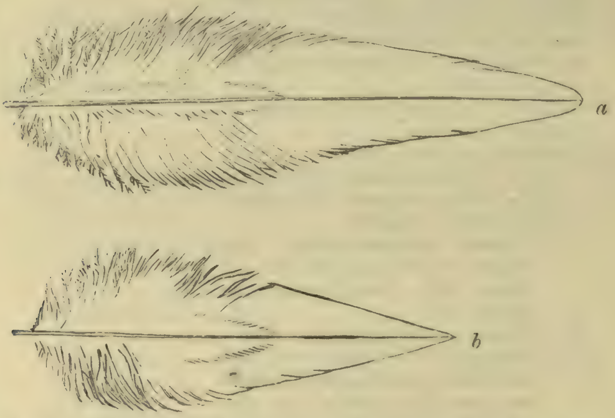

Fig. 2.—A throat-hackle of the Raven of Sikhim (*a*) and of the Raven of the Punjab (*b*).

*Coloration.* Entirely black, glossed with steel-blue, purple, and lilac; the throat-hackles long and conspicuous.

Iris brown; bill and legs shining black (*Hume Coll.*).

The following are the dimensions of the larger race found in the Himalayas:—length 28 inches; tail 11·5; wing up to 19·3; tarsus 2·7; bill from gape 3·2. The smaller race from the plains measures:—length about 24; tail 9·5; wing 16·3 to 17·4; tarsus 2·3; bill from gape 2·8.

The Raven of Tibet, Sikhim, Nepal, and the higher portions of the Himalayas is recognizably distinct from the Raven which is found as a permanent resident in Sind, Rajputana, and the Punjab. The Alpine race, a dweller in a cold bracing climate, has developed into an immense bird somewhat larger than any I have been able to pick out from a series of more than 50 Ravens from all parts of the northern hemisphere. The race from the plains of India, on the other hand, a dweller in an enervating tropical atmosphere, has dwindled down to a size which it is hard to match from the same series. Yet between the immense bird of Sikhim and the smallest bird of the plains it is by no means difficult to interpolate others from Europe and Africa which serve to bridge the difference of size. It therefore seems impossible to separate the Ravens of the whole world into two or more species.

If the Ravens of India alone are examined, it is not difficult to assign differential characters to two species. Not only is size sufficient, but the character and shape of the hackles of the throat, which I now figure, would suffice to diagnose them. As the matter stands, however, I unite them into one species, although I do so with considerable hesitation.

*Distribution.* The Raven is found throughout the Himalayas at altitudes generally of above 14,000 feet. It does not appear to be found below this level till the plains of the north-west are reached. Here a smaller and dull-coloured race occurs. This race is found throughout Sind, the Punjab, Baháwalpur, Bickaneer, the northern portions of Jodhpore and Jeypore, extending as far as Sámbhar, where it appears to be common. In some portions of the above area it is said to be migratory and a winter visitor, but in the greater portion of the tract it remains to breed.

The Raven is found in nearly every part of the northern hemisphere.

*Habits &c.* The Raven of the Himalayas and the Raven of Europe are shy, wary birds, seldom approaching civilized surroundings. The Raven of the North-west of India, on the other hand, appears to have all the habits of the Common Crow, attending camps and villages and going about without fear, but with the usual wariness of his tribe. Hume has noticed how a large number of Ravens die annually in the autumn on their first arrival in Sind from no apparent cause. Blanford informs me that the Sind Raven utters a most peculiar bell-like note besides the usual guttural cry.

The Raven of the North-west breeds from December to March. It constructs a large nest of sticks near the top of a tree standing in a field or in open jungle. The eggs are usually five in number and are greenish or pale blue, marked with blackish brown, olive, and pale purple. They measure 1·94 by 1·31.

Mandelli obtained the nest of the Sikhim bird high up towards the snows, containing four eggs. The date on which the nest was found is not stated.

### 2. **Corvus umbrinus.** *The Brown-necked Raven.*

Corvus umbrinus, *Hedenb. Sundev. Œfv. k. Vet.-Akad. Förh. Stockh.* 1838, p. 199; *Sharpe, Cat. B. M.* iii, p. 17; *Hume, S. F.* vii, p. 120; *id. Cat.* no. 660 bis; *Barnes, Birds Bom.* p. 251.

*Coloration.* Forehead and crown umber-brown, partially glossed with purple; nape, hind neck and mantle, sides of the head and sides of the neck umber-brown, almost glossless; remaining upper plumage glossy black; the whole lower plumage blackish brown, most of the feathers with umber-brown edges and with a very small amount of gloss.

Bill black; legs black, with a brownish tinge; iris dark brown (*Dresser*).

Length about 22; tail 9; wing 15·5; tarsus 2·5; bill from gape 2·5.

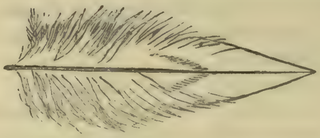

Fig. 3.—A throat-hackle of *C. umbrinus.*

*Distribution.* This Raven is a bird of the desert. It has occurred a few times within our limits, and I have seen specimens in the Hume Collection procured at Jacobabad and Lárkhána in Sind in January and February. It is probably more common in Mekrán. Apart from its coloration it is very distinct from *C. corax* of the Punjab, being very much smaller and having the hackles of the throat very much shorter. It extends eastwards to Egypt.

### 3. **Corvus corone.** *The Carrion-Crow.*

Corvus corone, *Linn. Syst. Nat.* i, p. 155 (1766); *Horsf. & M. Cat.* ii, p. 553; *Jerd. B. I.* ii, p. 295; *Hume, N. & E.* p. 410; *id. Cat.* no. 659; *Scully, Ibis,* 1881, p. 570; *Oates in Hume's N. & E.* 2nd ed. i, p. 4.
Corvus pseudocorone, *Hume, N. & E.* p. 410 (1873).
Corone corone (*Linn.*), *Sharpe, Cat. B. M.* iii, p. 36.

*Coloration.* The entire plumage intense glossy black, the feathers of the hind neck firm and with glistening shafts.

Bill and legs shining black; iris brown (*Dresser*).

Length about 19; tail 8; wing 12·6 to 14; tarsus 2·3; bill from gape 2·25.

*Distribution.* I cannot discover any difference between the only two Indian-killed specimens of this species I have seen and numerous others from various parts of the world. The Carrion-Crow appears to be a resident in Kashmir, where it breeds. It is no doubt common enough, but frequently overlooked as a common crow. It has not yet been found in any other part of India. The proper home of this bird is the eastern half of Siberia, from the Yenesay river to the Pacific, but it is also found in greater or less abundance southwards in Turkestan and Kashmir, extending into Europe as far as England.

*Habits, &c.* The Carrion-Crow, like the Raven, is found in the wildest parts of the countries it inhabits. It is generally solitary and but seldom seen in flocks. Brooks found the nest in Kashmir, at Sonamurg, on the 30th May, but he gives no particulars of the occurrence. The eggs, which are pale green, spotted and otherwise marked with greenish or olive-brown and pale sepia, measure 1·67 by 1·16.

### 4. **Corvus macrorhynchus.** *The Jungle-Crow.*

Corvus macrorhynchus, *Wagler, Syst. Av.*, Corvus, sp. 3 (1827); *Hume, S. F.* v, p. 461; *Hume, Cat.* no. 660; *Oates, B. B.* i, p. 397; *Barnes, Birds Bom.* p. 250; *Oates in Hume's N. & E.* 2nd ed. i, p. 4.
Corvus levaillantii, *Less. Traité*, p. 328 (1831); *Hume, N. & E.* p. 411; *id. S. F.* ii, p. 243; *Anders. Yunnan Exped. Aves*, p. 589.
Corvus culminatus, *Sykes, P. Z. S.* 1832, p. 96; *Horsf. & M. Cat.* ii, p. 553; *Jerd. B. I.* ii, p. 295; *Sharpe, Cat. B. M.* iii, p. 20.
Corvus intermedius, *Adams, P. Z. S.* 1859, p. 171; *Jerd. B. I.* ii, p. 297; *Hume & Henders. Lah. to Yark.* p. 237; *Hume, Cat.* no. 661.
Corvus tenuirostris, *Moore, apud Jerd. B. I.* ii, p. 297.
Corvus andamanensis, *Tytler, Beavan, Ibis*, 1866, p. 420.
Corone macrorhyncha (*Wagl.*), *Sharpe, Cat. B. M.* iii, p. 38; *Legge, Birds Ceyl.* p. 346.
Corone levaillanti (*Less.*), *Sharpe, Cat. B. M.* iii, p. 39.
Corvus enca, *Horsf. apud Hume, Cat.* no. 662.

*The Indian Corby, the Black Hill-Crow, the Slender-billed Crow*, Jerd.; *Dhar* or *Dhal kowa*, Hind. in the North; *Dheri-kowa*, Hind. in the South; *Karrial*, Hind.; *Dad-kag*, Beng.; *Kaki*, Tel.; *Kaka*, Tam.; *Ulak-pho*, Lepch.; *Ulak*, Bhut.; *Goyegamma-Kaka*, Ceyl.

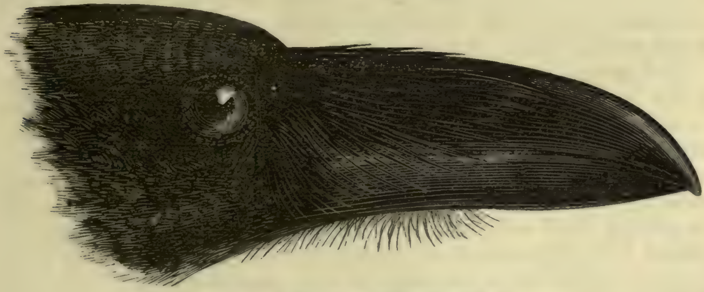

Fig. 4.—Head of *C. macrorhynchus.*

*Coloration.* Upper plumage glossy black except the hind neck and sides of neck, which are almost glossless, and of which the feathers are disintegrated and silky, not of the intense black of the other parts, and with the shafts not distinguishable from the webs.

Iris dark brown; legs, feet, and bill black.

Length about 19; tail 7 to 9; wing 11 to 14; tarsus about 2·2; bill from forehead to tip 2·2 to 2·5.

In the British Museum there are about 300 specimens of the Jungle-Crow from all parts of India and Burma. An examination of this series makes it evident, as Hume has already shown, that there is but one species of this large Crow in the Empire. Neither by size, structure, nor coloration is it possible to separate the series into two or more species. The smallest birds occur in the North-west Himalayas and the largest in the Andamans and Burma, and between the two extremes there is a connected chain of intermediate specimens.

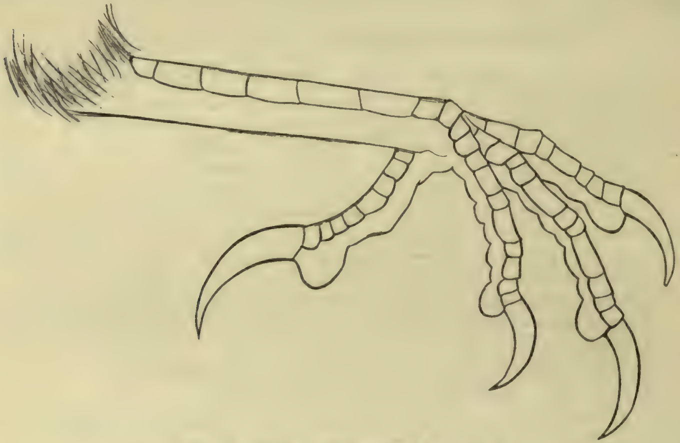

Fig. 5.—Foot of *C. macrorhynchus.*

*Distribution.* The Jungle-Crow occurs in every portion of the Empire and Ceylon, except the higher parts of the Himalayas, and is a resident species. It extends in the same or a modified form down to the islands of South-eastern Asia and to China.

*Habits, &c.* This Crow is not only found in forests and the remoter parts of the jungle, but it also frequents towns and villages in considerable numbers. It associates with the ordinary House-Crow; and the two species have precisely the same habits.

The nesting-season commences in the middle of January, and lasts throughout February. The nest, a large structure made of twigs and lined with some soft material such as hair or grass, is placed near the summit of a tolerably large tree well away from human habitations. The eggs, four or five in number, are green marked with various shades of brown, and measure about 1·7 by 1·2.

### 5. Corvus frugilegus. *The Rook.*

Corvus frugilegus, *Linn. Syst. Nat.* i, p. 156 (1766); *Blyth, Cat.* p. 90; *Horsf. & M. Cat.* ii, p. 557; *Jerd. B. I.* ii, p. 302; *Hume, Cat.* no. 664; *Biddulph, Ibis,* 1881, p. 77, 1882, p. 281; *Scully, Ibis,* 1881, p. 571; *Hume, S. F.* x, p. 518.

Trypanocorax frugilegus (*Linn.*), *Sharpe, Cat. B. M.* iii, p. 9.

*Coloration.* The whole plumage black; the head, neck, and lower plumage richly glossed with purplish blue, the upper plumage with violet-purple.

Bill and feet black; iris blackish brown (*Hume Coll.*).

Length about 19; tail 6·5 to 8; wing 12 to 13; tarsus about 2·2; bill from gape 2·5 to 2·8.

The nestling is without any gloss at first but quickly assumes it. About January, or when the young bird is about nine months old, the naral bristles are cast, and by March the front part of the head has become entirely denuded of feathers.

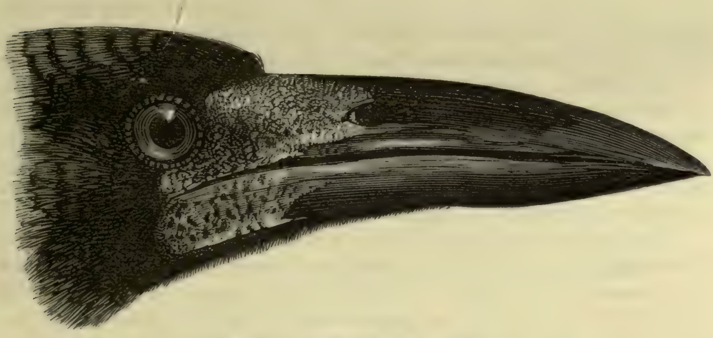

Fig. 6.—Head of *C. frugilegus.*

*Distribution.* The Rook occurs in Kashmir, the Hazára country and the extreme north-west portion of the Punjab in the winter The Hume Collection contains birds killed at Abbottabad from October to February, and Scully states that this species is common in Gilgit from the third week in October to the third week in April.

The Rook is found in Central Asia and in Europe, but to the east it is replaced by *C. pastinator*, which has a smaller extent of the face denuded of feathers.

*Habits, &c.* The Rook frequents the better cultivated parts of the country in large flocks, feeding in meadows and ploughed land on worms, snails and grubs. It does not breed in India. In Europe it breeds in large societies, building a nest similar to the Crow's on large trees.

### 6. **Corvus cornix.** *The Hooded Crow.*

Corvus cornix, *Linn. Syst. Nat.* i, p. 156 (1766); *Blyth, Cat.* i, p. 89; *Horsf. & M. Cat.* ii, p. 553; *Hume, S. F.* vii, pp. 406, 517; *id. Cat.* no. 659 bis; *Biddulph, Ibis*, 1881, p. 77.
Corone cornix (*Linn.*), *Sharpe, Cat. B. M.* iii, p. 31.

*Coloration.* Entire head and neck, the central part of the upper breast, the wings, tail, and thighs glossy black; remainder of the plumage drab-grey, the shafts of the upper parts black, those of the lower brown.

Iris brown; legs, bill, and feet black (*Johnson*).

Length 19; tail 7·5; wing 12·5; tarsus 2·2; bill from gape 2 to 2·2.

*Varieties.* Three races of Hooded Crow can readily be distinguished, and I have seen no specimens showing that any interbreeding takes place between them. The true *C. cornix* is found in Europe and eastwards as far as the Persian Gulf. The light parts of the plumage of this bird are ashy grey. *C. capellanus* is found round the Persian Gulf and in Mesopotamia. In this the light parts of the plumage are white with black shafts. The third race, which for convenience I shall term *C. sharpii*, inhabits Siberia, Turkestan, Afghanistan, and a portion of India. In this the light parts of the plumage are drab-grey. The three races are so distinct that any one could separate them at once.

*Distribution.* Occurs in winter in the extreme north-west portion of the Punjab, in the Hazára country, and in Gilgit. Biddulph observed this species in the last-mentioned place in December, January, and February. It extends westward to the head of the Persian Gulf and northwards to Siberia, where it appears to interbreed to a considerable extent with *C. corone*.

*Habits, &c.* The Hooded Crow has much the same habits as the Carrion-Crow, being shy and frequenting the more barren parts of the countries it inhabits. In addition to eating the usual food of its ally, it is said to feed on grain and to be found in fields searching the ground like the Rook. It does not breed in India.

### 7. **Corvus splendens.** *The Indian House-Crow.*

Corvus splendens, *Vieill. N. Dict. d'Hist. Nat.* viii, p. 44 (1817); *Blyth, Cat.* p. 90; *Horsf. & M. Cat.* ii, p. 559; *Jerd. B. I.* ii, p. 298; *Hume, Cat.* no. 663; *Scully, S. F.* viii, p. 326; *Oates, B. B.* i, p. 398; *Barnes, Birds Bom.* p. 251; *Oates in Hume's N. & E.* 2nd ed. i, p. 8.

Corvus impudiens, *Hodgs. in Gray's Zool. Misc.* p. 84 (1844).

Anomalocorax impudicus, *Hodgs., Gray, Hand-list*, ii, p. 14 (1870); *Hume, N. & E.* p. 413.

Corone splendens (*Vieill.*), *Sharpe, Cat. B. M.* iii, p. 33; *Legge, Birds Ceyl.* p. 349.

*The Common Indian Crow*, Jerd; *Kowa, Pati-Kowa, Desi-Kowa,* Hind. in various districts; *Kag* or *Kak*, Beng.; *Manchi Kaki*, Tel.; *Nalla Kaka*, Tam.; *Karavi-Kaka, Kakum*, Ceyl.; *Graya*, Port. in Ceylon; *Myan-Kwak*, Manipur.

*Coloration.* Forehead, crown, lores, cheeks, chin, and throat deep glossy black; nape, ear-coverts, the whole neck, upper back, and breast light ashy brown; wings, tail, and remainder of upper plumage glossy black; lower plumage from the breast dull brownish black. The feathers of the throat are lanceolate; and the whole of the black portions of the plumage are highly resplendent with purple-blue and greenish reflexions.

Iris dark brown; legs and bill black.

Length 17·5; tail 7; wing up to 11; tarsus 1·9; bill from gape 2.

The Common Crow of India varies considerably in its coloration according to climate. The light parts of the plumage of birds from Sind and the dry portions of India are nearly white, whereas birds from Ceylon and the more humid portions of the peninsula have these parts very dark, nearly as dark as the Burmese species.

*Distribution.* Occurs as a resident throughout the whole of India from Sind and the Punjab to Assam, ascending the Himalayas to about 4000 feet, and down to Ceylon. From Assam this Crow extends southwards to Manipur and Northern Arrakan, and somewhere about these parts it must meet the next species.

*Habits, &c.* The Indian House-Crow is the most familiar of all Indian birds, being found in every part of the country, but more especially in towns and villages, where its numbers are very great and its habits obtrusive. It has in a great measure become domesticated while retaining its wariness. It is eminently sociable, and even in wild districts a solitary bird is seldom seen. It breeds from May to July in clumps of trees near villages, constructing a rough nest of sticks lined with grass and other soft materials. The number of eggs varies from four to six, four, however, being the usual number. The colour is some shade or other of green or pale blue, and the eggs are marked in various ways with sepia, olive-brown, and sometimes purple. They measure on the average from 1·44 to 1·06.

### 8. **Corvus insolens.** *The Burmese House-Crow.*

Corvus insolens, *Hume, S. F.* ii, p. 480 (1874), iii, p. 144; *Wald. in Blyth, Birds Burm.* p. 87; *Oates, S. F.* v, p. 159; *Wardlaw Ramsay, Ibis,* 1877, p. 459; *Anders. Yunnan Exped., Aves,* p. 589; *Hume & Dav. S. F.* vi, p. 380; *Hume, Cat.* no. 663 bis; *Oates, B. B.* i, p. 399; *Oates in Hume's N. & E.* 2nd ed. i, p. 12.
Corone insolens (*Hume*), *Sharpe, Cat. B. M.* iii, p. 34.

*Kyeegan,* Burm.

*Coloration.* Forehead, crown, chin, and throat glossy black; back of the neck and its sides dull brown; ear-coverts and the whole lower plumage from the throat dull brownish black; wings and tail and remainder of the plumage deep glossy black. The feathers of the throat are lanceolate; and the whole of the black portions of the plumage are highly glossed with purple, blue, and green, varying according to the light thrown on them.

The dimensions are the same as those of *C. splendens.* The iris is dark brown; the legs and bill black.

*Distribution.* The whole of Burma except perhaps the northern parts of Arrakan and the northern portion of Upper Burma bordering on Assam and Manipur. To the south the limit appears to be Mergui. This species extends into Siam and Cochin China.

*Habits, &c.* The House-Crow of Burma, like its congener in India, is extremely abundant in all towns and villages; and even an isolated house in the jungle will usually be found to attract a few of these birds.

The breeding-season commences about the middle of March and lasts till the beginning of the rains. These birds almost always breed in societies, selecting a group of trees in a compound or near a monastery. The nest, made of twigs and lined with hair, grass or other soft substances, is placed high up in rather tall trees, and the eggs, usually four in number, resemble closely those of the preceding species.

### 9. **Corvus monedula.** *The Jackdaw.*

Corvus monedula, *Linn. Syst. Nat.* i, p. 156 (1766); *Blyth, Cat.* p. 90; *Hume, N. & E.* p. 414; *id. Cat.* no. 665; *Biddulph, Ibis,* 1881, p. 77; *Oates in Hume's N. & E.* 2nd ed. i, p. 12.
Corvus collaris, *Drummond, A. M. N. H.* xviii, p. 11 (1846).
Colæus monedula (*Linn.*), *Horsf. & M. Cat.* ii, p. 562; *Jerd. B. I.* ii, p. 302; *Hume & Henders. Lah. to Yark.* p. 239; *Scully, S. F.* iv, p. 158; *Sharpe, Cat. B. M.* iii, p. 26; *Scully, Ibis,* 1881, p. 572.
Colæus collaris (*Drummond*), *Sharpe, Cat. B. M.* iii, p. 27; *Scully, Ibis,* 1881, p. 572.

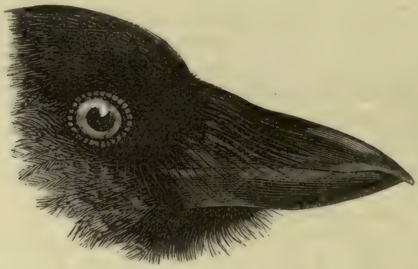

Fig. 7.—Head of *C. monedula.*

*Coloration.* Forehead and crown glossy black; nape and hind neck dusky grey; sides of the head and neck light grey, almost white, and forming a half-collar on the posterior portion of the side of the neck; lores blackish; upper plumage, wings, and tail bluish black with a considerable amount of gloss; chin and cheeks black with grey shaft-streaks; throat and fore neck entirely black; remainder of lower plumage slaty black with a very small amount of gloss.

Legs and bill black; iris nearly white (*Dresser*).

Length about 13; tail 5·2; wing 9·2; tarsus 1·7; bill from gape 1·5.

Jackdaws vary much *inter se* in the amount and purity of the white on the sides of the neck, and I cannot distinguish the race which has been separated under the title of *C. collaris.* A certain number of birds can be picked out of a series with the half-collar very white and distinct, but others from the same localities are typical *C. monedula,* and there are intermediate specimens. The majority of Indian birds incline towards *C. collaris,* and that is all that can be said in favour of the retention of the name.

*Distribution.* Kashmir and the north-west Punjab. According to Hume the Jackdaw is in winter numerous near the foot of the hills and has been found as far east as Umballa and south to Ferozepore, Jhelum, and Kálabágh, and it extends into the Dera Gházi-Khan District. It appears to be a resident in Kashmir and as far east as the valley of the Beas, throughout which tract it breeds freely.

It extends into Europe.

*Habits, &c.* The Jackdaw is most frequently observed in the vicinity of cliffs and old buildings, in the holes of which, as well as in holes of trees, it breeds, constructing a nest of sticks lined with soft substances, and laying four to six eggs, which are green marked with various shades of brown and purple, and measure 1·4 by ·98.

## Genus **PICA**, Brisson, 1760.

Two species of *Pica* occur in India, one identical with the English Magpie, the other peculiar to some of the higher parts of the Himalayas.

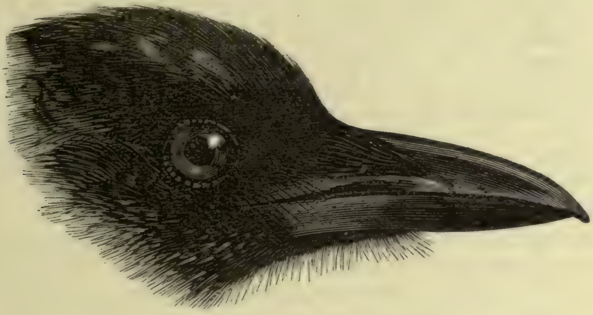

Fig. 8.—Head of *P. rustica.*

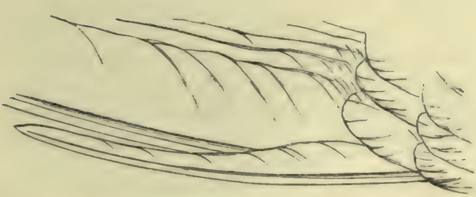

Fig. 9.—First primary of *P. rustica.*

*Pica* differs from *Corvus* in having a long graduated tail and a first primary of very peculiar shape. In habits the two genera are not very dissimilar. The Magpies are, however, more addicted to well-wooded districts; they are equally wary and they are almost omnivorous. They build large nests of sticks, domed and placed in trees or large bushes.

The two Indian species of Magpies are very distinct from each other. The large local Himalayan species has no allies. But the smaller Magpie, which is the same as the English one, varies considerably over the extensive tract of country it inhabits, chiefly in the amount of white on the quills of the wing.

### *Key to the Species.*

*a.* Wing always under 9 inches; a white or ashy band across the rump............ *P. rustica*, p. 24.
*b.* Wing always over 10 inches; the rump entirely black...................... *P. bottanensis,* p. 25.

### 10. **Pica rustica.** *The Magpie.*

Corvus pica, *Linn. Syst. Nat.* i, p. 157 (1766).
Corvus rusticus, *Scop. Ann.* i, p. 38 (1768).
Pica media, *Blyth, J. A. S. B.* xiii, p. 393 (1844); *id. Cat.* p. 91; *Horsf. & M. Cat.* ii, p. 551.
Pica caudata (*Ray*), *Blyth, Cat.* p. 91; *Horsf. & M. Cat.* ii, p. 550.
Pica tibetana, *Hodgs. A. M. N. H.* (2) iii, p. 203 (1849).
Pica bactriana, *Bonap. Consp.* i, p. 383 (1850); *Horsf & M. Cat.* ii, p. 550; *Hume & Henders. Lah. to Yark.* p. 240; *Hume, N. & E.* p. 416; *Scully, S. F.* iv, p. 158.
Pica leucoptera, *Gould, Birds Asia*, v, pl. 55 (1862).
Pica pica (*Linn.*), *Sharpe, Cat. B. M.* iii, p. 62.
Pica rustica (*Scop.*), *Hume, S. F.* vii, p. 407; *Anders. Yunnan Exped., Aves*, p. 590; *Hume, Cat.* no. 668 bis; *Biddulph, Ibis,* 1881, p. 78; *Scully, Ibis,* 1881, p. 572; *Oates in Hume's N. & E.* 2nd ed. i, p. 13.

*Akha,* Cabul.

*Coloration.* The entire head and neck, the upper plumage, breast, thighs, vent, and under tail-coverts black, the rump with a whitish or greyish band across; scapulars, abdomen, and the greater portion of the primaries white; wings brilliantly glossed with blue, and the tail with green, lilac and purple.

Bill and legs black; iris dark brown.

Length about 20; tail up to 12·5; wing 7·5 to 8·5; tarsus 1·8 to 2; bill at front 1·3.

With the exception of the amount of white on the primaries I cannot find that the Magpies of Asia differ in any respect from those of Europe. The amount of white is very variable and forms no character, in my opinion, by which two or more species may be recognized.

*Distribution.* The Magpie is a permanent resident over a considerable portion of Kashmir, coming down in winter to 5000 feet and ascending in summer to about 8000 feet. It occurs, so far as is known, in no other part of the Himalayas, but it reappears within our limits around Khelat in Baluchistan and also at Bhamo in Upper Burma, where both Anderson and my collector procured it in the cold weather.

This species is spread over a considerable portion of the Northern hemisphere.

*Habits, &c.* The Magpie is found in well-wooded parts of the country and near cultivation, and is said by Biddulph to be at all times common in Kashmir. He found two nests in May in that country. The nest is a large domed structure of sticks built in a tree or bush, and the eggs, usually five in number, are greenish marked with umber and sepia-brown and measure 1·25 by ·97.

### 11. **Pica bottanensis.** *The Black-rumped Magpie.*

Pica bottanensis, *Deless. Rev. Zool.* 1840, p. 100; *Blyth, Cat.* p. 91; *Horsf. & M. Cat.* ii, p. 551; *Jerd. B. I.* ii, p. 305; *Hume, S. F.* v. p. 281; *id. Cat.* no. 668; *id. S. F.* ix, p. 293.
Pica megaloptera, *Blyth, J. A. S. B.* xi, p. 193 (1842).
Pica tibetana, *Hodgs. A. M. N. H.* (2) iii. p. 203 (1849).
*The Himalayan Magpie,* Jerd.

*Coloration.* Resembles *P. rustica*, but is much larger with a longer wing and shorter tail and with the rump entirely black.

Length about 21; tail 11·5; wing 10 to 10·5; tarsus 2·1; bill at front 1·4 to 1·6.

All the species of *Pica* have a band of white or grey across the rump except the present form and *P. mauritanica*, which is found in Spain and N. Africa. Of *P. bottanensis* there are some thirty specimens in the British Museum and they all agree in having the rump entirely black, in their large size, short tail, and long wing.

*Distribution.* The higher parts of Bhutan, Native Sikhim, and Chinese Tibet. There is no evidence that *P. bottanensis* occurs in Nepal. There is a skin in the British Museum said to have been collected in Kumaon, but I doubt the correctness of this locality.

## Genus **UROCISSA**, Cabanis, 1850.

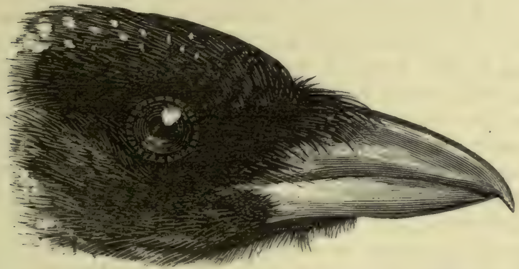

Fig. 10.—Head of *U. occipitalis.*

The genus *Urocissa* contains a few brightly plumaged Magpies which are found in India and China. They differ from the true Magpies in having the nostrils, which are covered by rather soft plumes, not by stiff bristles, situated near the base of the bill, in having a longer tail and a bill which is either red or yellow, never black.

The Blue Magpies frequent forest districts, and are not found so often near villages and cultivation as the common Magpie. They feed a great deal on the ground, chiefly on large insects. They differ remarkably from the species of *Pica* in not constructing a dome over their nests; otherwise their nesting-habits appear to be much the same.

*Key to the Species.*

*a.* Bill red; nuchal white patch large, reaching to the end of the black on the hind neck.... *U. occipitalis*, p. 26.

*b.* Bill yellow; nuchal white patch small, not reaching to the margin of the black on the hind neck............................. *U. flavirostris*, p. 27.

### 12. **Urocissa occipitalis.** *The Red-billed Blue Magpie.*

Psilorhinus occipitalis, *Blyth, J. A. S. B.* xv, p. 27 (1846); *id. Cat.* p. 93.

Psilorhinus magnirostris, *Blyth, J. A. S. B.* xv, p. 27 (1846); *id. Cat.* p. 93.

Urocissa sinensis (*Linn.*), *apud Horsf. & M. Cat.* ii, p. 577; *Jerd. B. I.* ii, p. 309.

Urocissa occipitalis (*Bl.*), *Jerd. B. I.* App. p. 873; *Hume, N. & E.* p. 419; *Sharpe, Cat. B. M.* iii, p. 70; *Hume, Cat.* no. 671; *Scully, S. F.* viii, p. 327; *Oates, B. B.* i, p. 400; *Hume, S. F.* xi, p. 258; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 618; *Oates in Hume's N. & E.* 2nd ed. i, p. 14.

Urocissa magnirostris (*Bl.*), *Hume, S. F.* iii, p. 144; *Sharpe, Cat. B. M.* iii, p. 71; *Hume & Dav. S. F.* vi, p. 385; *Anders. Yunnan Exped., Aves*, p. 592; *Hume, Cat.* no. 671 bis; *Bingham, S. F.* ix, p. 191.

*Nil-Khant*, at Mussoorie; *Digg-dall*, at Simla.

*Coloration.* Head, neck, and breast black; a large patch on the nape, continued down the back of the neck, white; some of the feathers of the crown also tipped with white; lower plumage white tinged with purple; tail blue, broadly tipped with white, and all but the central pair of feathers with a band of black next the white tips: wings brown; the first two primaries edged with blue, the next five edged with blue above the margination and with bluish white below; the other primaries and secondaries almost entirely blue on the outer web; the tertiaries blue on both webs; the whole of the quills tipped with white, at first on the outer web only and gradually extending to both webs; back, scapulars, and rump purplish blue, the wing-coverts brighter; upper tail-coverts blue tipped with black, and with a band of bluish white next the black tips.

Iris brown, probably turning to red in very old birds; bill and legs varying from red to crimson; eyelids greyish white; claws horn-colour; mouth flesh-colour.

Length up to 28; tail up to 19; wing 8; tarsus 1·9; bill from gape 1·8.

In the 'Birds of Burmah' I entered fully into the question of the identity of *U. magnirostris* with *U. occipitalis*, and it is not necessary now to discuss the subject again.

*Distribution.* The Himalayas from the Sutlej valley to Nepal. I can find no evidence of this bird's occurrence in Sikhim, Bhutan, or Assam; but it reappears in the Nága hills, about Bhamo, in Arrakan and generally throughout Burma in suitable localities down to Tenasserim. It also extends into Siam. In the Himalayas and the hill-ranges of Eastern Bengal it is found at an elevation of 5000 feet and higher, but in Burma it occurs at the level of the sea or not much above it. It is a permanent resident throughout its range.

*Habits, &c.* This Magpie is found in small parties of from three to six individuals. It breeds from March to July according to locality, constructing a solid cup-shaped nest of twigs and branches in trees at all heights from the ground. The eggs, three to five in number, are like those of *Pica rustica* in colour and they measure about 1·3 by ·95.

In Burma this Magpie affects the dry forests which occupy large tracts of country in the plains, and not the moister or evergreen forests of the hills.

### 13. **Urocissa flavirostris.** *The Yellow-billed Blue Magpie.*

Psilorhinus flavirostris, *Blyth, J. A. S. B.* xv, p. 28 (1846); *id. Cat.* p. 93.
Urocissa flavirostris (*Bl.*), *Horsf. & M. Cat.* ii, p. 578; *Jerd. B. I.* ii, p. 310; *Hume & Henders. Lah. to Yark.* p. 242; *Hume, N. & E.* p. 419; *Sharpe, Cat. B. M.* iii, p. 72; *Hume, Cat.* no. 672; *Scully, S. F.* viii, p. 328; *Oates in Hume's N. & E.* 2nd ed. i, p. 16.
Urocissa cucullata, *Gould, B. Asia.* v, pl. 51 (1861).

*Tying-jongring*, Lepch.; *Pianging-jabbring*, Bhut.

*Coloration.* Head, neck, and breast black, the nape white and the feathers of the crown tipped white; back, scapulars, rump, and upper tail-coverts purplish ashy, the last tipped black and with a narrow pale band in front of the black; wing-coverts, the outer web of the primaries and secondaries and the whole of the tertiaries purplish blue; all the quills tipped white, the earlier primaries whitish on the terminal half of the outer web; tail blue, with a broad white tip and all but the central pair of feathers with a subterminal black band; lower plumage, from the breast downwards, white tinged with purple.

Bill pale waxy yellow; iris (in male only) bright yellow; feet bright orange-yellow (*Scully*).

Length about 26; tail up to 18; wing 7·4; tarsus 1·8; bill from gape 1·5.

*Distribution.* The Himalayas from Ladak and Hazára to Bhutan at elevations of from 6000 to 10,000 feet.

*Habits, &c.* This Magpie, which has the same habits as the last, breeds from April to August, building a large nest of twigs and roots most commonly in oak trees, up to 30 feet or more from the ground. The eggs, usually four in number, are of the Magpie type and measure 1·3 by ·92.

There are two Chinese species of Blue Magpies, neither of which, however, is likely to occur within the limits of India.

### Genus **CISSA**, Boie, 1826.

The genus *Cissa* contains, among others, two Indian Magpies of very beautiful plumage. They differ from the Magpies of the genus *Urocissa* in having a much shorter tail and the eyelids wattled at the edges, a feature which is very distinct in life and generally visible in some degree in dry skins.

Jerdon, very properly I think, places this bird between *Urocissa* and *Dendrocitta*, but wrongly calls it a Jay. I think it may be better termed a Magpie, in view of its long tail and bright coloration.

The Magpies of this genus are forest birds of shy habits, feeding a good deal on the ground. In the construction of their nests they resemble *Urocissa* and not *Pica*. They have red bills.

Davison has mentioned (S. F. vi, p. 385) how closely the habits of these Magpies accord with those of *Garrulax*. They are moreover closely allied to that genus in structure and form a link between the *Corvidæ* and the *Crateropodidæ*.

*Key to the Species.*

| | |
|---|---|
| *a*. Head and neck green ........................ | *C. chinensis*, p. 28. |
| *b*. Head and neck chestnut ...................... | *C. ornata*, p. 29. |

### 14. **Cissa chinensis**. *The Green Magpie.*

Coracias chinensis, *Bodd. Tabl. Pl. Enl.* p. 38 (1783).
Corvus speciosus, *Shaw, Gen. Zool.* vii, p. 364 (1809).
Kitta venatorius, *Gray in Hardw. Ill. Ind. Zool.* i, pl. 24 (1832).
Cissa venatoria, *Gray, Blyth, Cat.* p. 92.
Cissa sinensis (*Briss.*), *Horsf. & M. Cat.* ii, p. 575; *Jerd. B. I.* ii, p. 312; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109.
Cissa speciosa (*Shaw*), *Hume, N. & E.* p. 421; *id. S. F.* iii, p. 145, iv, p. 509; *Bingham, S. F.* v, p. 85.
Cissa chinensis (*Bodd.*), *Sharpe, Cat. B. M.* iii, p. 85; *Hume & Dav. S. F.* vi, p. 385; *Hume, Cat.* no. 673; *Oates, B. B.* i, p. 406; *Hume, S. F.* xi, p. 258; *Oates in Hume's N. & E.* 2nd ed. i, p. 17.

*The Green Jay*, Jerd.; *Sirgang*, Beng.; *Chap-ling-pho*, Lepch.; *Rabling-chapu*, Bhut.; *Pilitel*, Dafla Hills.

*Coloration.* Head and neck greenish yellow; general body-plumage green; the lores and a band through each eye, the two meeting behind on the nape, black; the cheeks, sides of neck, and lower plumage paler green; tail green, the central feathers tipped with white, the others tipped with white and with a subterminal band of black; lesser wing-coverts green, the other coverts red; wings brown on the inner webs, red on the outer ones; the tertiaries and some of the secondaries tipped with pale blue and with a band of black in front of the tips.

Bill red; eyelids yellowish brown, the edges red; legs coral-red; iris blood-red; claws dull red; inside of the mouth reddish flesh-colour.

Length 15; tail 8; wing 5·9; tarsus 1·7; bill from gape 1·6.

The plumage of this bird changes after death and also in captivity from green to dull blue; and the red on the wings also undergoes a change under the same circumstances, becoming much duller. *C. minor*, a subspecies from Sumatra, is rather smaller.

*Distribution.* The Himalayas from the Jumna valley to Bhutan and Assam; thence through the hill-ranges of Eastern Bengal and Burma to Tenasserim, where this bird has been observed as far south as Mergui and the Thoungyeen valley. It is found from the base of the hills up to about 5000 feet.

*Habits, &c.* This Magpie is found in all descriptions of jungle, but personally I have only observed it in the evergreen forests. It is as a rule shy and difficult to observe, keeping to the ground or to dense undergrowth. It breeds principally in April, constructing a cup-shaped nest of twigs, roots, and bamboo-leaves in a tree or bamboo-bush at no great height from the ground. The eggs, three in number, are dull white freckled with yellowish and brown, and measure 1·21 by ·92.

### 15. **Cissa ornata.** *The Ceylonese Magpie.*

Pica ornata, *Wagler, Isis*, 1829, p. 749.
Cissa puella, *Blyth, Cat.* p. 93 (1849).
Cissa pyrrhocyanea, *Lichtenstein, Gould, B. Asia*, v, pl. 53 (1850).
Cissa ornata (*Wagl.*), *Sharpe, Cat. B. M.* iii, p. 87; *Legge, Birds Ceyl.* p. 353, pl. 15; *Hume, S. F.* vii, p. 408; *id. Cat.* no. 673 bis; *Oates in Hume's N. & E.* 2nd ed. i, p. 19.

*Kahibella*, Ceyl.

*Coloration.* Whole head, neck, upper back, and upper breast rich chestnut; remainder of the body-plumage bright blue, suffused with cobalt next the chestnut of the neck; tail blue, tipped with white and subterminally with black; wing-coverts brown, more or less margined and suffused with blue; quills chestnut on the outer webs, black on the inner, changing to blue on the tertiaries; thighs dusky purple.

Iris light brown; eyelid deep red; orbital skin somewhat paler; bill, legs, and feet coral-red; claws reddish yellow at base, dusky at tip (*Legge*).

Length about 17; tail up to 10; wing 6·5; tarsus 1·7; bill from gape 1·6.

*Distribution.* The forests of Ceylon only.

*Habits, &c.* Breeds in Ceylon during the cool season or from

December to February. The nest appears to be similar to that of the last. One egg recorded by Legge was bluish green marked with umber-brown and bluish grey, and measured about 1·3 by 1.

## Genus **DENDROCITTA**, Gould, 1833.

In the Tree-pies we have a collection of birds which are closer to *Pica* than to either *Urocissa* or *Cissa*, inasmuch as they have black bills and very numerous stiff, but somewhat short, bristles completely concealing the nostrils. The bill, however, is short with the commissure greatly curved, and in one species, *D. bayleyi*, the tail approaches the next genus in structure, the central feathers being gradually enlarged throughout their length, not suddenly at the tip as in *Crypsirhina*.

The Tree-pies are sociable, associating in small bands, and they are aboreal, seldom descending to the ground. They have a series of clear metallic notes, which sound very pleasantly in the jungle. They construct large nests in trees, and lay eggs which are less Corvine in appearance than those of the true Magpies. Their food consists of both fruit and insects.

### *Key to the Species.*

| | |
|---|---|
| *a.* Tail ashy and black. | |
| *a′.* Crown and hind neck uniform smoky brown; abdomen rufous ............ | *D. rufa*, p. 30. |
| *b′.* Crown black; hind neck and abdomen white ................................ | *D. leucogastra*, p. 31. |
| *c′.* Crown black; hind neck and abdomen uniform ashy......................... | *D. himalayensis*, p. 32. |
| *b.* Tail entirely black. | |
| *d′.* Without a white wing-spot............ | *D. frontalis*, p. 33. |
| *e′.* With a white wing-spot .............. | *D. bayleyi*, p. 34. |

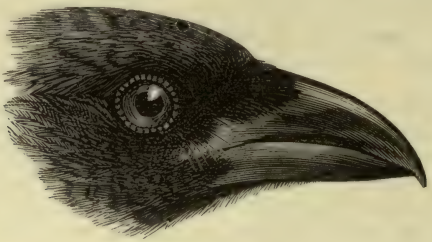

Fig. 11.—Head of *D. rufa*.

### 16. **Dendrocitta rufa.** *The Indian Tree-pie.*

Lanius rufus, *Scop. Del. Faun. et Flor. Insubr.* ii, p. 86 (1786).
Coracias vagabunda, *Lath. Ind. Orn.* i, p. 171 (1790).
Crypsirhina pallida, *Blyth, J. A. S. B.* xv, p. 30 (1846).
Dendrocitta rufa (*Scop.*), *Blyth, Cat.* p. 92; *Horsf. & M. Cat.* ii, p. 565 *Jerd. B. I.* ii, p. 314; *Hume, N. & E.* p. 421; *Sharpe, Cat. B. M.*

iii, p. 76; *Anders. Yunnan Exped., Aves*, p. 591; *Hume, Cat.* no. 674; *Oates, B. B.* i, p. 402; *Barnes, Birds Bom.* p. 252; *Hume, S. F.* xi, p. 259; *Oates in Hume's N. & E.* 2nd ed. i, p. 19.
Dendrocitta pallida (*Bl.*), *Blyth, Cat.* p. 336; *Horsf. & M. Cat.* ii, p. 568; *Jerd. B. I.* ii, p. 315; *Hume, Cat.* no. 675.

*The Common Indian Magpie*, Jerd.; *Maha-lat*, Hind., *Kotri*, Hind. in Bengal; *Takka-chor, Handi-chacha*, Beng.; *Mahtab* and *Chand*, Sind; *Gokurayi, Konda-Kati-gadu*, Tel.; *Mootri*, Lucknow; *Kashkussi*, Cachar; *Kola Khoa*, Assam.

*Coloration.* The whole head and neck with the breast sooty brown; remainder of the body-plumage bright fulvous, darker on the back and scapulars; wing-coverts greyish white; wings dark brown, the outer webs of the tertiaries and later secondaries grey; tail ashy grey, broadly tipped with black.

The young are duller in colour than the adults, the head is lighter brown, and the tail-feathers are tipped with light buff.

Iris reddish brown; bill slaty horn-colour, albescent at the base; mouth flesh-colour; eyelids plumbeous; legs dark brown; claws horn-colour.

Length up to about 18; tail up to 12·5; wing up to 6·7; tarsus 1·3; bill from gape 1·3. Himalayan birds are much larger than those from other parts.

*Distribution.* The whole of India and Burma from Kashmir to Travancore and from Assam to Tenasserim as far as Mergui. This bird ascends the Himalayas and hill-ranges up to 7000 feet, and it inhabits the plains at the level of the sea.

*Habits, &c.* Breeds from April to July and probably later in the year, constructing a cup-shaped nest, near the top of a large tree, of thorny twigs lined with grass. The eggs, usually five in number, vary much in colour, being salmon-colour or pale greenish white marked with bright red, brownish red, purple or olive-brown; they measure 1·17 by ·87.

### 17. **Dendrocitta leucogastra.** *The Southern Tree-pie.*

Dendrocitta leucogastra, *Gould, P. Z. S.* 1833, p. 57; *id. Trans. Z. S.* i, p. 89, pl. 12; *Blyth, Cat.* p. 91; *Horsf. & M. Cat.* ii, p. 570; *Jerd. B. I.* ii, p. 317; *Hume, N. & E.* p. 424; *id. S. F.* iv, p. 402; *Sharpe, Cat. B. M.* iii, p. 79; *Hume, Cat.* no. 678; *Davison, S. F.* x, p. 400; *Oates in Hume's N. & E.* 2nd ed. i, p. 22.

*Coloration.* Forehead, anterior half of crown, sides of the head, chin, throat, upper breast and thighs black; hinder part of crown, nape, hind neck, lower breast, abdomen, and upper tail-coverts white; back, scapulars and rump chestnut-bay; under tail-coverts chestnut; wings black, the primaries with a large patch of white at their base; central tail-feathers grey, broadly tipped black; the next pair half grey and half black; the remainder nearly entirely black.

Bill black; legs and feet dull black; iris deep brown (*Davison*).

Length about 19; tail 12; wing 5·6; tarsus 1·2; bill from gape 1·1.

The young resemble the adult very closely.

*Distribution.* Southern India, chiefly along the western coast. The southernmost point from which I have seen a specimen is Mynall in Travancore, and the most northern, the Wynaad; but McMaster (J. A. S. B. 1871, pt. ii, p. 214) states that he procured a specimen in May at Chikalda in the Gawilgurh hills. He is hardly likely to have made a mistake about so well-marked a form as this, but the occurrence of this bird so far north is extraordinary.

*Habits, &c.* According to Davison this Tree-pie is found only in evergreen forest below about 5000 feet. On the Assambu hills it is found from 1500 to 3000 feet. Bourdillon, in the latter locality, found two nests, composed of twigs roughly put together, and built in a bush or sapling. One nest was found in March with eggs, and one in April with young birds. The only egg preserved measured 1·13 by ·86.

### 18. **Dendrocitta himalayensis.** *The Himalayan Tree-pie.*

Dendrocitta sinensis (*Lath.*) *apud Blyth, Cat.* p. 92; *Horsf. & M. Cat.* ii, p. 568; *Jerd. B. I.* ii, p. 316.

Dendrocitta himalayensis, *Blyth, Ibis,* 1865, p. 45; *Hume, N. & E.* p. 423; *Sharpe, Cat. B. M.* iii, p. 79; *Hume & Dav. S. F.* vi, p. 386; *Hume, Cat.* no. 676; *Scully, S. F.* viii, p. 329; *Oates, B. B.* i, p. 403; *Hume, S. F.* xi, p. 259; *Oates in Hume's N. & E.* 2nd ed. i, p. 23.

Dendrocitta assimilis, *Hume, S. F.* v, p. 117; *id. & Dav. S. F.* vi, p. 386; *id. S. F.* vii, p. 519; *id. Cat.* 676 bis.

*The Himalayan Magpie,* Jerd.; *Kokia-Kak,* at Mussoorie; *Karrio-pho,* Lepch.; *Karriah-bun,* Bhut.; *Kok-long-ah,* Assam.

*Coloration.* Forehead, lores and feathers above the eye black; sides of the head, chin and throat dark sooty brown, fading and overspreading the sides of the neck and breast; crown of the head, nape, and upper back ashy; back and scapulars clear brownish buff; rump and upper tail-coverts ashy; wings and their coverts black, all the primaries but the first two with a patch of white at their base, forming a conspicuous spot; central pair of tail-feathers ashy for two thirds of their length, then black; the others all black, except the extreme bases, which are ashy; abdomen and flanks cinereous; thighs brown; vent and under tail-coverts chestnut.

The young do not differ much from the adult; the colours are paler, the feathers of the upper plumage are tipped with buff, and the under tail-coverts and vent are reddish brown.

Bill black; irides reddish brown; feet brownish black, in young birds leaden black; claws dusky (*Scully*).

Length 16; tail 9; wing 5·5; tarsus 1·1; bill from gape 1·3.

Tenasserim birds have the cheeks, ear-coverts, and throat paler, and the sides of the neck and the upper back tinged with brown They are, however, hardly separable from some Himalayan birds.

*Distribution.* Throughout the Himalayas from the Sutlej valley to Sadiya, and thence through the Assam hill-tracts to Tenasserim, where it has been procured as far south as Muleyit mountain. In the Tweeddale collection there is a specimen labelled as having been obtained at Murree, and Blyth records the species from Arrakan, whence, however, I have not seen a specimen. It is found in hilly tracts at elevations from 2000 to 6000 or 7000 feet, and does not appear to occur in the plains.

*Habits, &c.* According to Jerdon, this species is found in the more open parts of the forest and near cultivation and villages. It breeds from May to August. The nest is usually a shallow, flimsy saucer of twigs built in a small tree. The eggs, which are marked with olive-brown, measure 1·14 by ·85.

A closely allied species is *D. sinensis*, with which the present species was long confounded. *D. sinensis* occurs throughout China, is of smaller size, has the tail-coverts whiter and the central tail-feathers entirely white.

### 19. **Dendrocitta frontalis.** *The Black-browed Tree-pie.*

Dendrocitta frontalis, *McClell. P. Z. S.* 1839, p. 163; *Horsf. & M. Cat.* ii, p. 569; *Jerd. B. I.* ii, p. 317; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 83; *Sharpe, Cat. B. M.* iii, p. 78; *Hume, Cat.* no. 677; *id. S. F.* xi, p. 260.
Crypsirhina altirostris, *Blyth, J. A. S. B.* xii, p. 932 (1843).
Dendrocitta altirostris (*Blyth*), *Blyth, Cat.* p. 92.

*The Black-browed Magpie*, Jerd.; *Hamshi-bon*, Lepch.; *Kolio-Ko*, Bhut.

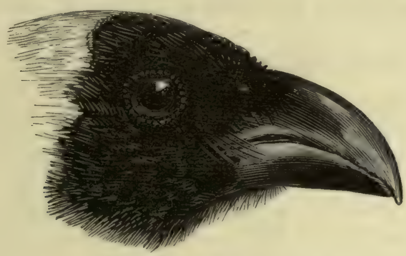

Fig. 12.—Head of *D. frontalis.*

*Coloration.* Forehead, the greater part of the crown, sides of the head, chin, throat, fore neck, tail, wing-quills, and the primary-coverts black; the remainder of the wing ash-grey; nape, hind neck, upper back, sides of the neck, breast, and upper abdomen pale grey; lower back, scapulars, rump, upper tail-coverts, lower abdomen, thighs, and under tail-coverts chestnut, the thighs tinged with brown.

The colour of the bill, &c., does not appear to have been recorded.

Length 15; tail up to 10; wing 5·3; tarsus 1·15; bill from gape 1·1.

*Distribution.* The Himalayas from Nepal to the extreme east of Assam. Jerdon found it in Sikhim at from 3000 to 5000 feet of elevation. Little or nothing is on record about this bird.

### 20. **Dendrocitta bayleyi.** *The Andamanese Tree-pie.*

Dendrocitta bayleyi, *Tytler, J. A. S. B.* xxxii, p. 88 (1863); *Ball, J. A. S. B.* xxxix, pt. ii, p. 242; xli, pt. ii, p. 285; *id. S. F.* i, p. 75; *Walden, Ibis,* 1874, p. 145, pl. vi; *Hume, S. F.* ii, p. 245; *Sharpe, Cat. B. M.* iii, p. 82; *Hume, Cat.* no. 678 bis.

*Coloration.* The feathers round the base of the bill black; the remainder of the head, neck, upper back, and upper breast dark bluish ashy; lower back, scapulars, and rump pale rufous-olive; upper tail-coverts bluish ashy; lower breast rufescent ashy; abdomen, vent, and under tail-coverts chestnut; tail and wing black, the latter with a large white patch on the primaries and secondaries.

Bill, legs, feet, and claws black; the soles plumbeous grey; iris bright yellow, in some rich golden yellow (*Hume*).

Length up to 14; tail up to 8·5; wing 5; tarsus 1·05; bill from gape 1·05.

*Distribution.* The Andaman Islands. This Tree-pie was obtained by Davison near Port Blair, where it was not uncommon; but he found it most numerous at Mount Harriet and Aberdeen. He observes that it is a forest bird and never ventures away from the cover of large trees; also that it never descends to the ground. I did not observe it on the Great Cocos nor on Table Island.

## Genus **CRYPSIRHINA,** Vieill., 1816.

With this genus we come to the end of the Magpies or long-tailed Crows. The members of the present genus are small and are characterized by a tail of peculiar structure, the central pair of feathers being spatulate at the ends. The bill is small and the nostrils are concealed by a mass of velvety fine plumes, which also surround the base of the bill.

The Racket-tailed Magpies are quite arboreal, and in the course of many years' observation of them I have never on any occasion seen one on the ground. They cling to the outer branches of trees and search the leaves for insects; they also feed on fruit. They have a not unpleasant metallic note. The nest is more skilfully constructed than that of other Magpies, being firmly secured by tendrils of creeping plants and presenting a compact appearance. The eggs are quite Corvine in their character.

### *Key to the Species.*

*a.* The whole head and body metallic green . . . . . . *C. varians*, p. 35.
*b.* The head black; the body grey . . . . . . . . . . . . *C. cucullata*, p. 35.

### 21. **Crypsirhina varians.** *The Black Racket-tailed Magpie.*

Corvus varians, *Lath. Ind. Orn. Suppl.* p. xxvi (1801).
Crypsirhina varians (*Lath.*), *Blyth, Cat.* p. 92; *Horsf. & M. Cat.* ii, p. 564; *Wald. P. Z. S.* 1866, p. 552; *Hume, S. F.* iii, p. 146; *Sharpe, Cat. B. M.* iii, p. 83; *Wardlaw Ramsay, Ibis*, 1877, p. 459; *Oates, S. F.* v, p. 159; *Hume & Dav. S. F.* vi, p. 386; *Hume, Cat.* no. 678 quat.; *Oates, B. B.* i, p. 404; *id. in Hume's N. & E.* 2nd ed. i, p. 25.

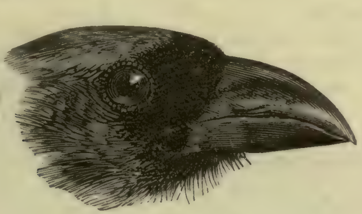

Fig. 13.—Head of *C. varians.*

*Coloration.* The whole plumage metallic bronze-green, tinged with bluish on the head; wings brown, the outer webs of the primaries greenish, the other quills more or less entirely suffused with green; tail black, more or less overspread with a metallic-green lustre; forehead, round the eye and about the gape dull black, the feathers of a velvety texture.

Iris blue; mouth flesh-colour; bill, legs, and claws black.

Length 13; tail 8; wing 4·6; tarsus 1·1; bill from gape 1.

*Distribution.* This fine little Magpie has its headquarters in Lower Pegu, whence it extends sparingly up the valleys of the Irrawaddy and of the Sittoung to Thayetmyo and Toungngoo. To the west it extends to Bassein. To the south it occurs throughout Tenasserim as far as Mergui.

It is found in Siam, Cochin China, Sumatra, Borneo and Java.

*Habits, &c.* This bird is found in all parts of the country except heavy forest. It breeds in June or July, constructing a neat cup-shaped nest, of fine twigs lined with tendrils of creepers, in thorny bushes and branches of bamboo, at no great height from the ground. The eggs are usually three in number, greyish white covered with spots and dashes of ash and yellowish brown; they measure ·98 by ·72.

### 22. **Crypsirhina cucullata.** *The Hooded Racket-tailed Magpie.*

Crypsirhina cucullata, *Jerdon, Ibis*, 1862, p. 20; *Hume, S. F.* iii, p. 147; *Blyth, Birds Burm.* p. 88; *Sharpe, Cat. B. M.* iii, p. 84; *Wardlaw Ramsay, Ibis*, 1877, p. 459; *Hume, Cat.* no. 678 ter.; *Oates, B. B.* i, p. 405.

*Coloration.* The whole head, chin, and throat black; round the neck, next to the black, a collar of ashy white; the whole upper plumage, wing-coverts, and tertiaries vinaceous grey; lower plumage the same, but rather more rufous; central tail-feathers black, the others the same colour as the back; primaries and their coverts black; secondaries black, broadly edged with ashy white.

The young have the head brown; the central tail-feathers and wings are blackish brown, and the general colour of the body-plumage is less ashy and more vinaceous.

The young have the bill orange at the gape and black on the remainder; the eyelids pale blue with the edges orange; the inside of the mouth orange.

The adult has the iris blue; eyelids plumbeous; bill black; legs and claws dark brown; inside of the mouth flesh-colour.

Length 12·5; tail 7·8; wing 4·1; tarsus 1·05; bill from gape ·85.

This Magpie has the central tail-feathers narrower than in *C. varians*, and more abruptly spatulate at their ends.

*Distribution.* The Hooded Racket-tailed Magpie was discovered by Jerdon at Thayetmyo, and I found it very common in the neighbourhood of that station. It extends to the east about 20 miles to Tamagan, and on the south about 10 miles to Palow. It probably extends some way to the west of the Irrawaddy river, and to the north it ranges into Upper Burma for some distance. Colonel Lloyd appears to have sent it from Toungngoo; but Wardlaw Ramsay expresses doubts as to its occurrence in that district, and I feel pretty sure it does not range so far to the east.

*Habits, &c.* This species is very similar in habits to *C. varians*; but is found almost entirely in bamboo-jungle.

## Genus **PLATYSMURUS**, Reich., 1850.

The genus *Platysmurus* contains two species, one of which is a resident in the southern portion of Tenasserim and the other inhabits Borneo. They seem to connect the Magpies with the Jays.

The bill is very much curved and shorter than the head, and the bristles covering the nostrils are numerous and stiff but short. The feathers of the crown of the head are very harsh. The tail is of no great length but well graduated. The sexes are alike and the young appear to resemble the adults.

Davison, who observed these birds in life, says:—"This species keeps entirely to the forests, going about usually in parties of from four to six. They have a deep, rolling metallic note, which they continually utter as they move from tree to tree. I have never seen them on the ground; they probably get their food, which consists of insects, and occasionally, at any rate, of fruit, amongst the trees. They are excessively restless and always on the move, flying from tree to tree, generally at a considerable height, and continually uttering their harsh metallic call. They restrict themselves to the evergreen forests, never, that I am aware, coming into gardens or open ground."

### 23. **Platysmurus leucopterus.** *The White-winged Jay.*

Glaucopis leucopterus, *Temm. Pl. Col.* no. 265 (1824).
Temnurus leucopterus (*Temm.*), *Blyth, Cat.* p. 92; *Wald. in Blyth, Birds Burm.* p. 88.
Platysmurus leucopterus (*Temm.*), *Horsf. & M. Cat.* ii, p. 564; *Sharpe, Cat. B. M.* iii, p. 90; *Tweedd. Ibis,* 1877, p. 318; *Hume & Dav. S. F.* vi, p. 387; *Hume, Cat.* no. 678 quint.; *Oates, B. B.* i, p. 409; *id. in Hume's N. & E.* 2nd ed. i, p. 26.

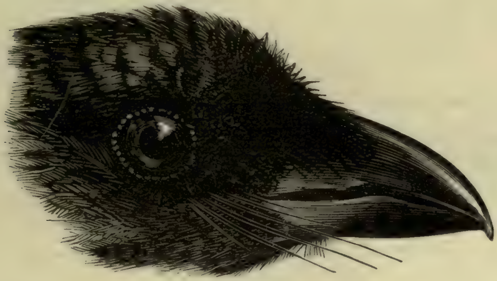

Fig. 14.—Head of *P. leucopterus.*

*Coloration.* The whole plumage black; the terminal halves of the larger upper wing-coverts and a large patch on the exterior webs of some of the secondaries white; the forehead crested and the feathers stiff.

In some specimens the smaller wing-coverts are narrowly margined with white, and this probably indicates immaturity.

Bill, legs, feet and claws black; irides lake-red to crimson (*Davison*).

Length 16; tail 8; wing 7·5; tarsus 1·55; bill from gape 1·7.

*Distribution.* Throughout Southern Tenasserim from a little above Tavoy down to Malawún, also down the Malay peninsula to Singapore and Sumatra.

*Habits, &c.* Davison found the nest on the 8th April with two young birds. It was constructed most coarsely of twigs &c., and was placed on the frond of a large reed which rested against a bush.

## Genus **GARRULUS**, Briss., 1760.

The genus *Garrulus* contains the True Jays, of which there are numerous species in Europe and Asia, three being found within the limits of the Indian Empire. These Indian Jays are resident species, but one or perhaps two of them may be partially migratory, to the extent of moving up and down the slopes of the Himalayas according to season.

The Jays are birds of bright plumage, the wing especially being marked with vivid blue. They inhabit woods, have harsh cries, are rather shy, and live on all kinds of food, both animal and vegetable. They construct large open nests of twigs and lay eggs marked with brown.

In the Jays the bill is strong, about three-quarters the length of the head, and the commissure is straight. The naral bristles are short and numerous, completely covering the nostrils. The tail is of medium length and slightly graduated.

*Key to the Species.*

| | |
|---|---|
| *a.* Forehead and crown black; tail blue barred with black .......................... | *G. lanceolatus*, p. 38. |
| *b.* Forehead white; crown black; tail black. | *G. leucotis*, p. 39. |
| *c.* Forehead and crown vinaceous like the back; tail black...................... | *G. bispecularis*, p. 39. |

### 24. **Garrulus lanceolatus.** *The Black-throated Jay.*

Garrulus lanceolatus, *Vigors, P. Z. S.* 1830, p. 7; *Gould, Cent.* pls. 39, 40; *Horsf. & M. Cat.* ii, p. 579; *Jerd. B. I.* ii, p. 308; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 55; *Hume, N. & E.* p. 417; *Brooks, S. F.* iii, p. 253; *Hume, Cat.* no. 670; *Sharpe, Cat. B. M.* iii, p. 101; *Oates in Hume's N. & E.* 2nd ed. i, p. 26.

Garrulus gularis, *J. E. Gray in Hardw. Ill. Ind. Zool.* i, pl. 23, fig. 1 (1832); *Blyth, Cat.* p. 94.

Garrulus vigorsii, *J. E. Gray in Hardw. Ill. Ind. Zool.* i, pl. 22 (1832).

*Ban-sarrah* of the Hillmen at Simla.

*Coloration.* Forehead, crown, nape, crest, and sides of head black; remainder of upper plumage vinous-grey, brighter on the rump and upper tail-coverts; chin, throat, and fore neck black with white shaft-streaks, the black terminating in a patch of iron-grey on the upper breast; remainder of lower plumage and the sides of the neck vinous-grey, brighter than the back; tail blue, barred with black, tipped with white and with a broad subterminal black band; primaries and secondaries black, barred with blue on the outer web; the primaries narrowly, the secondaries broadly tipped white; the tertiaries grey, with a subterminal black band and a white tip; lesser coverts vinous, the median and greater black; primary-coverts almost entirely white; winglet barred with blue and tipped white.

Legs and feet pinkish slaty; bill pinkish slaty at base, yellowish at tip; iris reddish (*King*).

Length about 13; tail 6·5; wing 6; tarsus 1·3; bill from gape 1·1.

Many birds, apparently adult, have no white tips to the secondaries and tertiaries.

*Distribution.* The Himalayas from Hazára to Nepal and over nearly the whole of Kashmir. The species appears to be partially migratory, being found in winter as low as Dehra. In summer it ascends to 8000 feet.

*Habits, &c.* Breeds from April to June, constructing a shallow nest of twigs and sticks lined with grass. The nest is built in medium-sized trees in a fork or close to the trunk up to 30 feet in height. The eggs, three or four in number, vary in colour from stone-colour to greenish white and are marked with sepia-brown; they measure 1·12 by ·85.

### 25. **Garrulus leucotis.** *The Burmese Jay.*

Garrulus leucotis, *Hume, Proc. A. S. B.* 1874, p. 106; *id. S. F.* ii, p. 443; *Wald. in Blyth, Birds Burm.* p. 89; *Wardlaw Ramsay, Ibis,* 1877, p. 460; *Hume & Dav. S. F.* vi, p. 384; *Hume, Cat.* no. 669 bis; *Oates, B. B.* i, p. 407; *id. in Hume's N. & E.* 2nd ed. i, p. 28.

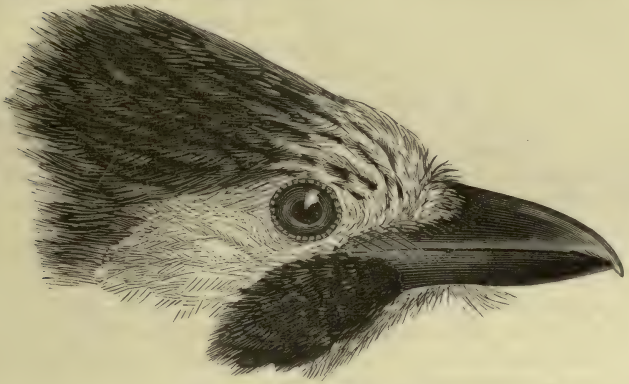

Fig. 15.—Head of *G. leucotis.*

*Coloration.* Forehead and front of crown white, with brown shaft-streaks; lores, feathers under the eyes, ear-coverts, chin, throat, and front of neck white; a broad moustachial stripe black; back, rump, and scapulars vinous brown, paler on the rump; breast the same as the back; abdomen and flanks paler vinous brown; upper and under tail-coverts and vent white; tail black, barred with ashy towards the base; wing precisely as in *G. bispecularis.*

The young bird does not differ in any particular from the adult.

The legs and feet are whitish horny or flesh-colour; bill blackish horny or dull black, whitish at tip; irides lighter or darker wood-brown (*Davison*).

Length 12·8; tail 5; wing 6·8; tarsus 1·7; bill from gape 1·5.

*Distribution.* Tenasserim to the east of the Sittoung river from Toungngoo down to Muleyit mountain and the Thoungyeen valley. This Jay also occurs in Karennee and probably in the hills between the Irrawaddy and the Sittang rivers.

*Habits, &c.* Found in pine-forests and the other dry forests of the country, never apparently in evergreen forests. This is a resident species and breeds in Burma, but its nest has not yet been found.

### 26. **Garrulus bispecularis.** *The Himalayan Jay.*

Garrulus bispecularis, *Vigors, P. Z. S.* 1830, p. 7; *Gould, Cent.* pl. 38; *Royle, Himalaya,* pl. —; *Horsf. & M. Cat.* ii, p. 579; *Jerd. B. I.* ii, p. 307; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 55; *Hume, & Henders. Lah. to Yark.* p. 242; *Hume, N. & E.* p. 416; *Brooks, S. F.* iii, p. 253; *Sharpe, Cat. B. M.* iii, p. 100; *Godw.-Aust.*

*J. A. S. B.* xlvii, pt. ii, p. 21; *Hume, Cat.* no. 669; *Scully, S. F.* viii, p. 327; *Hume, S. F.* xi, p. 257; *Oates in Hume's N. & E.* 2nd ed. i, p. 28.

Garrulus ornatus, *J. E. Gray in Hardw. Ill. Ind. Zool.* i, pl. 23, fig. 2 (1832); *Blyth, Cat.* p. 94.

*Lho-Karrio-pho*, Lepch.

*Coloration.* A broad black moustachial band; lower part of rump, upper and under tail-coverts, vent and thighs white; with these exceptions the whole plumage of the head, neck, and body is a rich vinaceous fawn-colour; tail black, with some interrupted ashy bars near the base of the central pair of feathers; lesser and median wing-coverts like the back; winglet, primary-coverts, the outer greater coverts and the outer webs of most of the secondaries, on their basal half, bright blue banded with black; remainder of the greater coverts, and quills black, the primaries with some portion of the outer web grey; the innermost tertiary partially chestnut.

Bill dusky; margins of eyelids dull brick-red; iris reddish brown; tarsi and toes pale pinkish fleshy; claws livid (*Scully*).

Length about 12; tail 6; wing 6·5; tarsus 1·4; bill from gape 1·2.

*Distribution.* Throughout the lower ranges of the Himalayas from Eastern Kashmir to Bhutan and also in the Khási hills: apparently ranging up to 7000 feet.

*Habits, &c.* Breeds from March to June, constructing a cup-shaped nest of twigs and grass, lined with finer grass, in a fork of a tree and laying from four to six eggs. These are like those of the last species and measure 1·15 by ·85.

## Genus **NUCIFRAGA**, Briss., 1760.

The genus *Nucifraga* contains the Nutcrackers, birds of well-marked form and colour, two of which are found within Indian limits inhabiting the higher parts of the Himalayas, where they are resident.

In the Nutcrackers the plumage is more or less spotted; the bill is straight, pointed, and about as long as the head; the naral bristles are short and stiff and completely cover the nostrils; the wings are strong, but the tail is short and very little rounded.

The Nutcrackers are chiefly arboreal in their habits and they prefer forests of pine and cedar trees, on the seeds of which they largely subsist; but they also eat other seeds and fruits and also insects. Their notes are harsh and loud. They build large nests, like those of crows, high up in trees, and their eggs are spotted with brown.

Near this genus should come *Podoces*, a genus of birds found in Tibet and Central Asia. Hume inserts one species in his Catalogue; but it does not occur within strict Indian limits.

### *Key to the Species.*

| | |
|---|---|
| *a.* Rump and upper tail-coverts not marked with white .......................... | *N. hemispila*, p. 41. |
| *b.* Rump and upper tail-coverts marked with white .......................... | *N. multipunctata*, p. 41. |

### 27. **Nucifraga hemispila.** *The Himalayan Nutcracker.*

Nucifraga hemispila, *Vigors, P. Z. S.* 1830, p. 8; *Gould, Cent.* pl. 36; *Blyth, Cat.* p. 90; *Horsf. & M. Cat.* ii, p. 563; *Jerd. B. I.* ii, p. 304; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 54; *Blanf. J. A. S. B.* xli, pt. ii, p. 69; *Hume, N. & E.* p. 415; *id. Cat.* no. 666; *Brooks, S. F.* iii, p. 253; *Sharpe, Cat. B. M.* iii, p. 54; *Oates in Hume's N. & E.* 2nd ed. i, p. 30.

Nucifraga immaculata, *Blyth, Ibis,* 1867, p. 36.

*Lho-Kariyo-pho,* Lepch.

*Coloration.* Naral bristles, forehead, crown, nape, hind neck, and upper tail-coverts chocolate-brown; with these exceptions the whole of the plumage is umber-brown, the sides of the head and neck streaked with white; chin and throat with a few small white shaft-streaks; the back, breast, and upper abdomen with oval white drops; under tail-coverts pure white; wings glossy black, the lesser and median coverts with triangular white tips; central tail-feathers black, the others very broadly tipped white, the amount of white decreasing inwardly; a few of the inner primaries with a large oval white mark on the inner web, probably disappearing with age, as it is absent in some birds.

Some birds have the spots on the breast rufous; this may be accidental and due to staining; it is not the plumage of the young, in which the rufous is of a different character.

The young are pale brown with rufescent drops which speedily turn white; the head soon turns to the adult colour.

Legs and feet black; iris reddish to deep brown (*Hume*).

Length about 15; tail 6; wing 8·5; tarsus 1·6; bill from gape 1·9.

*Distribution.* The Himalayas from the Sutlej valley to Bhutan. Stoliczka states that this bird is common in the N.W. Himalayas from low elevations to the limit of trees. Blanford found it rare on the outer ranges of Sikhim, but common in the pine-forests of the interior, and Hume remarks that it is very common in the hills north of Simla.

*Habits, &c.* A nest described by Hume was situated on a tree near the trunk and about 50 feet from the ground. The nest was like a Crow's, a platform of sticks mixed up with twigs and moss, and lined with grass and fir-needles. On the 11th May this nest contained four young birds.

### 28. **Nucifraga multipunctata.** *The Larger Spotted Nutcracker.*

Nucifraga multipunctata, *Gould, P. Z. S.* 1849, p. 23; *Hume & Henders. Lah. to Yark.* p. 239; *Sharpe, Cat. B. M.* iii, p. 55; *Hume, Cat.* no. 667; *Biddulph, Ibis,* 1881, p. 78; *Scully, Ibis,* 1881, p. 572.

Nucifraga multimaculata, *Gould,* laps. cal., *Jerd. B. I.* ii, p. 304; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 54.

*Coloration.* Forehead, crown, nape, and hind neck dark chocolate-brown; naral bristles mottled black and white; with these exceptions the whole plumage of the head and body is dark chocolate-brown or blackish, each feather with a large and lengthened drop of white occupying the greater portion of it, and causing the lower plumage to look almost white; wings glossy black; the lesser coverts with large white spots, the median with triangular white marks, the greater and primary-coverts with the primaries slightly tipped with white; the secondaries and tertiaries with oval white drops near the tip; tail black, broadly tipped white on the outer feathers, less so on the centrals; under tail-coverts pure white.

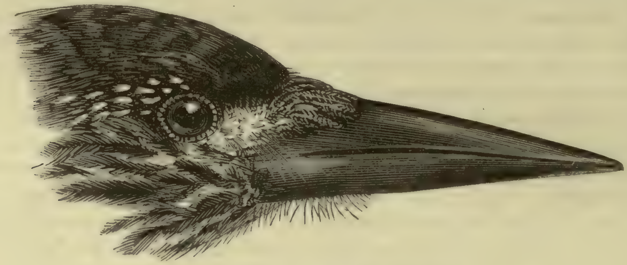

Fig. 16.—Head of *N. multipunctata.*

The young have the head and hind neck pale brown; the head becomes dark almost as soon as the nestling is fully fledged.

Bill horny brown; legs black (*Jerdon*).

Length about 15; tail 6·5; wing 8; tarsus 1·6; bill from gape 1·9.

*Distribution.* Kashmir and the Himalayas to Kumaon. Stoliczka found this species tolerably common in the pine- and cedar-forests near Kistwar and Budrawar. Biddulph remarks that it is common at all times in Gilgit above 8000 feet, and there are specimens in the British Museum from various localities from Murree to Kumaon.

## Genus **GRACULUS**, Koch, 1816.

The Chough, the sole representative of the genus *Graculus*, resembles the true Crows in shape and colour, but differs from all of them in having the bill and feet brilliantly coloured. It inhabits Europe, Northern Africa, and a considerable portion of Asia.

The Chough is found principally in mountainous districts, and delights in cliffs, in holes of which it usually breeds; but in Tibet it also affects buildings for the purpose of nesting. The Chough is more or less gregarious, and it feeds on the ground after the manner of the Rook, and upon much the same substances.

In *Graculus* the bill is very slender and curved and as long as the head, or even longer; the naral plumes are very short and dense, and the lower mandible is feathered to the same extent as the upper. This bird differs markedly from the true Crows in possessing a smooth tarsus, but it differs in no other important particular.

### 29. **Graculus eremita.** *The Red-billed Chough.*

Corvus graculus, *Linn. Syst. Nat.* i, p. 158 (1766).
Corvus eremita, *Linn. Syst. Nat.* i, p. 159 (1766).
Fregilus graculus (*Linn.*), *Blyth, Cat.* p. 91; *Horsf. & M. Cat.* ii, p. 549; *Blanf. J. A. S. B.* xli, pt. ii, p. 69; *Brooks, S. F.* iv, p. 278; *Hume & Henders. Lah. to Yark.* p. 243.
Fregilus himalayanus, *Gould, P. Z. S.* 1862, p. 125; *Jerd. B. I.* ii, p. 319; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 55.
Graculus graculus (*Linn.*), *Sharpe, Cat. B. M.* iii, p. 146.
Graculus eremita (*Linn.*), *Hume, S. F.* vii, pp. 149, 521; *id. Cat.* no. 679; *Oates in Hume's N. & E.* 2nd ed. i, p. 31.

*The Himalayan Chough*, Jerd.; *Tsagh*, Kandahar.

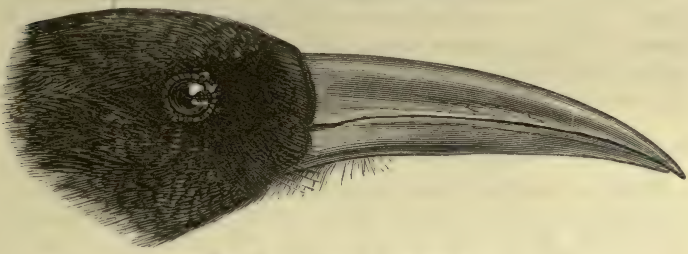

Fig. 17.—Head of *G. eremita.*

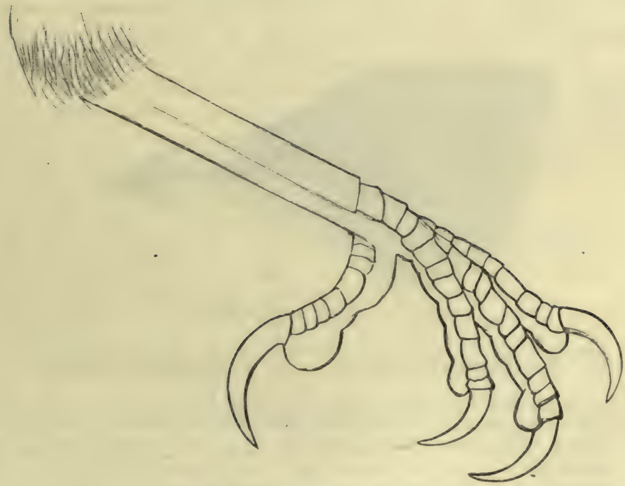

Fig. 18.—Foot of *G. eremita.*

*Coloration.* The whole plumage glossy black.

Legs and feet vermilion-red; claws black; iris brown (*Seebohm*).

Length about 17·5; tail 6·5; wing 11·1 to 12·5; tarsus 2·2; bill at front 2·1.

The Himalayan bird cannot be separated from the European one on the score of size, and I believe that no one now considers them separable.

*Distribution.* Kashmir and the whole of the Himalayas as far as Bhutan. The range extends to Europe and Abyssinia on one side, and to China on the other.

In Kashmir Biddulph informs us that Choughs are common at low elevations in winter, but in summer they keep entirely to the mountains. Stoliczka states that in Chini the Chough in summer is found only at elevations above 11,000 feet, and in Spiti above 13,000 feet. Blanford observed it in Sikhim from 9000 to 16,000 feet.

*Habits, &c.* Mandelli obtained the eggs of this bird from Chumbi in Tibet. They were taken on the 8th May from a nest under the eaves of a high wooden house. Hume describes them as white, spotted and streaked with yellowish brown and purplish grey. One egg measured 1·74 by 1·2.

## Genus **PYRRHOCORAX**, Vieill., 1816.

*Pyrrhocorax* differs from *Graculus* in having a much shorter and a much stouter bill, and the lower mandible not nearly so much feathered at the base as the upper one. The structure of the two genera is otherwise quite the same, and they do not differ in habits, except that the Yellow-billed Chough appears to be a tame and fearless bird, taking the place of the Common Crow in parts of Kashmir.

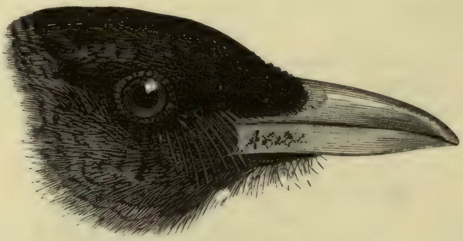

Fig. 19.—Head of *P. alpinus.*

### 30. **Pyrrhocorax alpinus.** *The Yellow-billed Chough.*

Corvus pyrrhocorax, *Linn. Syst. Nat.* i, p. 158.
Pyrrhocorax alpinus, *Vieill. Nouv. Dict. d'Hist. Nat.* vi, p. 568 (1816); *Blyth, Cat.* p. 90; *Horsf. & M. Cat.* ii, p. 549; *Jerd. B. I.* ii, p. 319; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 56; *Scully, S. F.* iv, p. 162; *Sharpe, Cat. B. M.* iii, p. 148; *Hume, Cat.* no. 680; *Biddulph, Ibis,* 1881, p. 78.
Fregilus pyrrhocorax (*Linn.*), *Blanford, J. A. S. B.* xli, pt. ii, p. 70.
Pyrrhocorax forsythi, *Stoliczka, S. F.* ii, p. 462 (1874).

*The Alpine Chough,* Jerd.

*Coloration.* The whole plumage black with a slight gloss; the wings and tail very glossy.

Iris brown; bill yellow; feet red (*Blanford*).

Length about 16; tail 6·3 to 7·5; wing 10·3 to 11·5; tarsus 1·6; bill 1·4.

*Distribution.* The whole of the Himalayas from Kashmir to Bhutan. This Chough appears to move locally according to season, being found low down in winter and up to 15,000 feet or even higher in summer.

*Habits, &c.* According to Stoliczka this species is very social, and frequently visits the camp of the traveller in Spiti and Ladák; it is here quite as familiar and quite as noisy in the neighbourhood of villages and camping-grounds as *Corvus splendens* throughout India.

This bird breeds in holes of cliffs, but the finding of the nest has not yet been recorded from Indian localities.

## Subfamily PARINÆ.

This subfamily contains the Tits, the affinities of which with the Crows are recognized by all writers on ornithology.

Some species of Tits, like the Crows, are found over a very large portion of the surface of the globe. All the Indian species are resident.

The *Parinæ* bear a close resemblance to each other, the different genera being characterized by the absence or presence of a crest and the shape of the tail.

The Tits live chiefly on insects, but they also eat seeds, and in hard weather no sort of food comes amiss to them. They all lay spotted eggs, but while some are content with a hole of a tree as a nesting-place, others construct elaborate rounded structures in trees, and the eggs in many cases are numerous. The young are considerably paler than the adult, but the pattern of colour is well preserved in all the species.

The Tits have a short, conical and entire bill about one-third the length of the head; the rictal bristles are short, and the bristles over the nostrils, though short, are very dense and straight. The wing is rounded and weak, and the tarsus scutellated.

In habits they are arboreal, seldom descending to the ground, and they are in some degree gregarious, being found frequently in parties of four or more.

### *Key to the Genera.*

*a.* Head not crested.
  *a′*. Tail rounded.
    *a″*. Outer tail-feather falling short of tail-tip by length of hind claw.......... PARUS, p. 46.
    *b″*. Outer tail-feather falling short of tail-tip by length of hind toe and claw .. ÆGITHALISCUS, p. 50.
  *b′*. Tail square or slightly forked .......... SYLVIPARUS, p. 53.
*b.* Head furnished with a full crest.
  *c′*. Tail rounded ........................ MACHLOLOPHUS, p. 54.
  *d′*. Tail square or slightly forked .......... LOPHOPHANES, p. 57.

## Genus **PARUS**, Linn., 1766.

The genus *Parus*, of which the Great Tit of England may be considered the type, contains those Tits which are not crested and in which the tail is slightly rounded. They have a broad, black, longitudinal, ventral band, and in this character agree with *Machlolophus*, which, however, possesses a long pointed crest.

The True Tits are found over a considerable portion of the world. Four species inhabit the Indian Empire, one being extremely common over the whole of the plains; another is found as a comparatively rare visitor from China and the East, and two others are local, being confined to certain portions of the Empire only.

In *Parus* the feathers of the crown are very slightly lengthened, but do not form a crest; the tail is considerably shorter than the wing, and the outer feather falls short of the tip of the tail by about the length of the hind claw.

Of the Titmice which occur in Asia, and may hereafter be found within the limits of this work, may be mentioned :—*P. persicus*, a Persian race of the European *P. cœruleus*; *P. cyanus*, which has been found in Yarkand; and *P. flavipectus*, which occurs in Turkestan.

*P. semilarvatus*, which at one time was supposed to occur in the Himalayas, is now known to come from the Philippine Islands. There is no evidence to show that it has ever been found in India, and I therefore omit it.

*Key to the Species.*

*a.* Lower plumage white.
  *a'.* Back and rump ashy grey................ *P. atriceps*, p. 46.
  *b'.* Back yellow; rump ashy grey............ *P. minor*, p. 48.
  *c'.* Back and rump black .................. *P. nuchalis*, p. 49.
*b.* Lower plumage yellow ..................... *P. monticola*, p. 49.

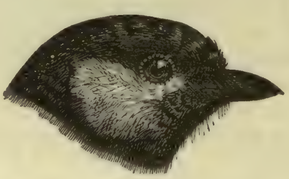

Fig. 20.—Head of *P. atriceps.*

### 31. **Parus atriceps.** *The Indian Grey Tit.*

Parus atriceps, *Horsf. Trans. Linn. Soc.* xiii, p. 160 (1822); *Legge, Birds Ceyl.* pt. ii, p. 557; *Oates, B. B.* i, p. 125; *id. in Hume's N. & E.* 2nd ed. i, p. 31.

Parus cinereus, *Vieill. Tabl. Enc. et Méthod.* ii, p. 506 (1823); *Blyth, Cat.* p. 103; *Horsf. & M. Cat.* i, p. 370; *Jerd. B. I.* ii, p. 278; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 52; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 181; *Hume & Henders. Lah. to Yark.* p. 230; *Gadow, Cat. B. M.* viii, p. 16.

Parus nipalensis, *Hodgs. Ind. Rev.* 1838, p. 31; *Anders. Yunnan Exped., Aves*, p. 632; *Hume, Cat.* no. 645; *Biddulph, Ibis*, 1881, p. 73; *Barnes, Birds Bom.* p. 248; *Hume, S. F.* xi, p. 255.
Parus cæsius, *Tick. fide Jerd. B. I.* ii, p. 278; *Hume, N. & E.* p. 405.

*Ram-gangra*, Beng.

*Coloration.* Forehead, lores, crown, nape, chin, throat, breast, a band on either side the neck connecting the nape with the breast, and a band down the middle of the abdomen black; cheeks and ear-coverts white; the upper part of the back next the black of the nape white; remainder of back, rump, scapulars, and lesser and median coverts ashy grey; winglet and greater coverts black, edged with ashy grey, and the latter broadly tipped white; quills dark brown, the earlier primaries and the tertiaries edged white, the other quills with ashy grey; upper tail-coverts deep ashy blue; tail black, the four median pairs of feathers edged with ashy grey on the outer webs and all but the middle two pairs tipped white; fifth pair white, with the shaft black and a band of black on the inner web; outer pair nearly entirely white with a black shaft; sides of the breast and abdomen white tinged with vinaceous; under tail-coverts black in the centre, white at the sides.

Bill black; iris brown; legs and feet plumbeous.

Length about 5·5; tail 2·6; wing 2·6; tarsus ·65; bill from gape ·5.

The young have the upper plumage suffused with yellow and the lower with buff, and are not readily separable from the young of *P. minor*.

Towards the East, in Burma and China, the amount of white on the fifth pair of tail-feathers diminishes, and frequently the outer web is almost entirely black.

The middle pair of rectrices is occasionally blue, with black shafts. I cannot discover that this peculiarity is due to any cause or occurs in any distinct method, but it may indicate a race. The character is neither sexual nor seasonal so far as the materials at my disposal afford evidence.

This and the next species have been generally supposed to interbreed in Southern China, and to have produced an intermediate race, which has been named *P. commixtus*. I cannot discover any grounds for the supposition that interbreeding of the two species takes place. Every specimen from Southern China that I have been able to examine is referable either to *P. minor* or to *P. atriceps*. The former is found as far west as Karennee and the Salween district of Tenasserim in a form almost as typical as Japanese specimens, and the latter in Amoy as typical as Southern-Indian birds or those from Java.

In size both species are exactly similar, and they are only to be separated by the coloration of the back and the tail. In *P. minor* the back in newly-moulted birds is a clear yellowish green, and the penultimate tail-feather on each side is entirely black with the exception of a white tip; in *P. atriceps* the back is ashy grey like the rump, and the penultimate tail-feather on each side is white with a black shaft and a band of black on the inner web. Small variations in the colour of the tail occur, but they are never so great as to cause any doubt in the identification of the species, especially when supported by the colour of the back.

The young of both species are very similar, and have a great amount of yellowish green on the upper plumage, and it is not easy to separate them.

*Distribution.* Throughout the whole of India alike in the hills and plains, but more commonly in the elevated and well-wooded parts. In the Himalayas this Tit is found at all altitudes up to 9000 feet or more, from Hazára and Gilgit to Assam. It extends through the peninsula down to Cape Comorin and into Ceylon, the only portion from which it appears to be absent being Sind and Cutch. From Assam its range extends down to Tenasserim, where, however, it is noted by Davison as being rare. On the eastern borders of Burma the next species is found; but a bird procured near Bhamo by my collector was *P. atriceps*, and so apparently is a young bird obtained by Anderson near the same locality and now in the British Museum.

Outside of Indian limits proper it occurs on the west in Baluchistan and Afghanistan, and on the north in Turkestan, where it is found as a paler race (*P. boccharensis*), and it passes up the Sutlej valley into Little Tibet. To the east it extends through Southern China, and to the south down the Malay peninsula to the islands.

*Habits, &c.* Breeds from March to June, laying five or six eggs on a pad of moss, grass, and hair in a hole of a tree or wall. The eggs are pinkish white, with a ring of red spots and blotches round the larger end and a few small spots elsewhere, and they measure ·71 by ·54.

### 32. **Parus minor.** *The Japanese Grey Tit.*

Parus minor, *Temm. & Schleg. Faun. Jap., Aves,* p. 70, pl. 33 (1842); *Gadow, Cat. B. M.* viii, p. 15.
Parus commixtus, *Swinh. Ibis,* 1868, p. 63; *Wald. in Bl. Birds Burm.* p. 111; *Hume & Dav. S. F.* vi, p. 376; *Hume, Cat.* no. 645 bis.

*Coloration.* Resembles *P. atriceps.* Differs in having the back and scapulars yellowish green instead of ashy grey and in having the fifth pair of tail-feathers black with a small white tip.

Iris hair-brown; bill black; legs plumbeous (*Wardlaw Ramsay*).

Of the same size as *P. atriceps.*

The amount of black in the fifth pair of tail-feathers is reduced towards the extreme south-western limit of the range, as on the Burmese frontier. No other variation occurs, the back being as green in Karennee examples as in typical Japanese ones.

The specimen procured by Davison in the Salween district has the fifth pair of rectrices white, with a broad black band on the inner webs reaching nearly to the tip. In two Karennee examples one has these feathers black with a white tip about half an inch long, and the other resembles the Salween specimen. All three can be nearly matched by Japanese birds.

The tail of *P. minor* varies a good deal in length, but the average length of the tail of ten Japanese birds is exactly the same as that of ten Indian specimens of *P. atriceps* selected at random.

*Distribution.* Karennee and the Salween district of Tenasserim, extending through China to Japan.

### 33. **Parus nuchalis.** *The White-winged Black Tit.*

Parus nuchalis, *Jerd. Madr. Journ. L. S.* xiii, p. 131 (1844); *id. Ill. Ind. Orn.* pl. 46; *Jerd. B. I.* ii, p. 279; *Stoliczka, J. A. S. B.* xli, pt. ii, p. 245; *Adam, S. F.* i, p. 385; *Butler & Hume, S. F.* iii, p. 492; *Butler, S. F.* v, p. 221; *Hume, Cat.* no. 646; *Gadow, Cat. B. M.* viii, p. 38; *Barnes, Birds Bom.* p. 248.

*Nalla patsa jitta,* Tel.

*Coloration.* The whole upper plumage, wing-coverts, lores, sides of the crown, chin, throat, centre of breast, and a broad ventral band black; a large nape-patch, the cheeks, ear-coverts, and those parts of the lower plumage not already mentioned white; the under tail-coverts streaked with black; quills with the outer webs white at base and a partial narrow edging of white elsewhere; the later secondaries broadly edged with white, and the last tertiary or two entirely white; the two outer tail-feathers white, the next with the outer web white, the inner web black with a white tip, the other feathers black with white tips. The amount of white on the tail is liable to variation.

Iris dark brown; bill black; legs and feet slaty-plumbeous (*Butler*).

Length about 5·5; tail 2·1; wing 2·6; tarsus ·7; bill from gape ·45.

*Distribution.* From the country round the Sámbhar Lake through Ajmere to Deesa and on to Cutch. Jerdon, however, procured it in quite another part of India, namely the Eastern Gháts west of Nellore, and he states that Dr. Stewart obtained it near Bangalore. I have not been able to examine any specimen from these southern localities. The southern birds may probably, as Hume opines, prove to be distinct from the northern. As at present known the distribution of this bird is most extraordinary. A specimen in the British Museum is marked Bhutan!

### 34. **Parus monticola.** *The Green-backed Tit.*

Parus monticolus, *Vig. P. Z. S.* 1831, p. 22; *Gould, Cent.* pl. 29, fig. 2; *Blyth, Cat.* p. 103; *Horsf. & M. Cat.* i, p. 369; *Jerd. B. I.* ii, p. 277; *Hume & Henders. Lah. to Yark.* p. 229; *Hume, N. & E.* p. 404; *id. Cat.* no. 644; *Scully, S. F.* viii, p. 323; *Gadow, Cat. B. M.* viii, p. 20; *Hume, S. F.* xi, p. 254; *Oates in Hume's N. & E.* 2nd ed. i, p. 35.

*Sarak-chak-pho,* Lepch.

*Coloration.* Cheeks and ear-coverts white; the whole head, nape, breast, and a broad band down the middle of the abdomen black; a whitish patch on the nape; back and scapulars greenish yellow;

rump slaty; upper tail-coverts black; tail black, the outer webs suffused with blue, all the feathers tipped with white, the outer web of the outermost pair of feathers entirely white; lesser wing-coverts black, edged with slaty; the other coverts and the winglet black, edged with blue and tipped with white, forming two wing-bars; the earlier primaries edged with white at base and below the emarginations; the others, with the secondaries, edged with blue and tipped with white; tertiaries black, edged and tipped with white; abdomen, sides of breast, and axillaries deep yellow; under tail-coverts black tipped with white.

The young are very similar to the adult.

Bill black; iris brown; legs dark plumbeous; claws dusky (*Scully*).

Length about 5; tail 2·3; wing 2·7; tarsus ·7; bill from gape ·5.

This Tit is of the same type of plumage as *P. major* of Europe and Northern Asia, but is more brightly coloured, has two wing-bars and more white on the tertiaries.

*Distribution.* Throughout the Himalayas from Kashmir to Bhutan. *P. monticola* also occurs in the Khási and Nága Hills, and Hume obtained it at Matchi on the Eastern Hills of Manipur. It appears to be found chiefly from 4000 to 8000 feet of elevation.

*Habits, &c.* This species breeds from March to June, constructing a loose nest of moss and feathers in a hole of a tree, wall, or bank. It lays five to eight eggs, which are very similar to those of *P. atriceps* in colour, and measure ·72 by ·52.

## Genus **ÆGITHALISCUS**, Cab., 1850.

Similar to *Parus* but with a more graduated tail and the feathers of the crown longer and more copious; no ventral band; of diminutive size.

### *Key to the Species.*

*a.* Chin white; throat black.
  *a′*. Eyebrow pure white................ *Æ. erythrocephalus*, p. 50.
  *b′*. Eyebrow black, streaked with white .. *Æ. manipurensis*, p. 51.
*b.* Chin and throat black ................ *Æ. leucogenys*, p. 51.
*c.* Chin and throat white ................ *Æ. niveigularis*, p. 52.
*d.* Chin and throat silvery white .......... *Æ. ioschistus*, p. 52.

### 35. **Ægithaliscus erythrocephalus.** *The Red-headed Tit.*

Parus erythrocephalus, *Vig. P. Z. S.* 1831, p. 23; *Gould, Cent.* pl. 30, fig. 1.
Ægithaliscus erythrocephalus (*Vig.*), *Jerd. B. I.* ii, p. 270; *Hume, N. & E.* p. 401; *id. Cat.* no. 634; *Scully, S. F.* viii, p. 322; *Oates in Hume's N. & E.* 2nd ed. i, p. 36.
Orites erythrocephalus (*Vig.*), *Blyth, Cat.* p. 104; *Horsf. & M. Cat.* i, p. 374.
Acredula erythrocephala (*Vig.*), *Gadow, Cat. B. M.* viii, p. 56.

*Pyiong-samyi*, Lepch.

*Coloration.* Forehead, crown, and nape chestnut; a broad eyebrow from the eye to the nape white; lores, round the eye, ear-coverts, a band under the eyebrow and a large round patch on the throat black; chin and a moustachial streak white; remainder of the lower plumage ferruginous, with a paler band across the breast next to the black of the throat; upper plumage and wing-coverts bluish grey; primary wing-coverts and winglet dark brown; quills brown, narrowly edged with bluish grey; tail dark brown suffused with bluish grey, the outer web of the outermost feather white, the inner tipped white; the next two feathers tipped with white.

Bill black; gape fleshy; iris pale yellow or yellowish creamy; feet buffy yellow; claws livid (*Scully*).

Length about 4·2; tail 2; wing 2; tarsus ·6; bill from gape ·35.

*Distribution.* Throughout the Himalayas from Hazára to Bhutan, generally at elevations of from 6000 to 10,000 feet. South of the Bramaputra River this species is replaced by the next.

*Habits, &c.* Breeds from March to May, constructing a roundish ball of a nest of moss, lichen, and roots in the branch of an oak or a deodar and occasionally in tufts of grass and low bushes. The eggs, four to eight in number, are pinkish, dotted with reddish in a zone round the larger end; they measure ·56 by ·45.

### 36. **Ægithaliscus manipurensis.** *Hume's Red-headed Tit.*

Ægithaliscus erythrocephalus (*Vig.*), *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 169; *Wald. in Blyth's Birds Burm.* p. 112; *Hume & Dav. S. F.* vi, p. 376; *Oates, B. B.* i, p. 127.
Ægithaliscus manipurensis, *Hume, S. F.* xi, p. 254 (1888).

*Coloration.* Resembles *Æ. erythrocephalus.* Differs in having the eyebrow black, streaked with white; the pectoral band, next the black throat, very white and distinct; and the lower plumage chestnut, the portion next the pectoral band being a brighter chestnut.

The male has the legs and feet warm reddish-mahogany brown; claws darker; bill black; iris bright yellowish white. The female has the legs and feet very pale orange-brown; bill black; iris creamy-white. (*Hume.*)

Length about 4·2; tail 2; wing 2; tarsus ·35; bill from gape ·3.

*Distribution.* Shillong; the Nága Hills; the Limatol range in the western hills of Manipur; Karennee at 3000 feet.

### 37. **Ægithaliscus leucogenys.** *The White-cheeked Tit.*

Orites leucogenys, *Moore, P. Z. S.* 1854, p. 139; *Horsf. & M. Cat.* i, p. 374.
Ægithaliscus leucogenys (*Moore*), *Hume, Cat.* no. 634 bis; *Biddulph, Ibis,* 1881, p. 71, 1882, p. 281; *Scully, Ibis,* 1881, p. 567.
Acredula leucogenys (*Moore*), *Gadow, Cat. B. M.* viii, p. 59.

*Coloration.* Forehead, crown, and nape pale reddish brown; lores, a very broad band through the eye to the nape, chin and throat black; cheeks and ear-coverts white; upper plumage, a band over the ear-coverts, wing-coverts, and the edges of the wing-feathers olive-grey; winglet and primary-coverts dark brown; tail brown, the outermost feather with the outer web white and the inner tipped white, the next feather obliquely, and the next very narrowly tipped white; lower plumage reddish fawn, the portion immediately next the black throat deep rusty red.

Bill black; iris pale creamy or white; feet pale orange; claws dusky or brown (*Scully*).

Length about 5; tail 2·2; wing 2·2; tarsus ·65; bill from gape ·35.

The young have the black chin and throat of the adult faintly indicated and the colours duller.

*Distribution*. Confined apparently to the north-west portion of Kashmir. Biddulph obtained this bird about fifteen miles above Gilgit, and Scully states that it is a permanent resident along the course of the main valley above Gilgit from Bargo to Singal at elevations from 5500 to 7000 feet. It extends into the adjoining parts of Afghanistan.

### 38. **Ægithaliscus niveigularis.** *The White-throated Tit.*

Orites niveogularis, *Gould, Moore, P. Z. S.* 1854, p. 140.
Ægithaliscus niveogularis (*Gould*), *Jerd. B. I.* ii, p. 272; *Hume, Cat.* no. 636.
Acredula niveogularis (*Gould*), *Gadow, Cat. B. M.* viii, p. 58.

*Coloration*. Forehead and front of crown, cheeks, chin, throat, and sides of neck white; lores and a very broad eye-band black, the two bands partially blending on the nape; ear-coverts hair-brown slightly streaked with whitish; hind crown and nape buffy brown; upper plumage, wing-coverts, and edges of the wing-feathers ashy grey, all but the latter tinged with isabelline; tail brown, the outermost feather with the outer web white, the next two white along the shaft and at the tip; lower plumage pinkish buff, divided from the white of the throat by a broad brown band.

The young have the chin and throat pinkish; otherwise they resemble the adult.

Bill in the dry state black; legs reddish brown.

Length about 4·3; tail 2·2; wing 2·3; tarsus ·7; bill from gape ·4.

*Distribution*. I have examined specimens obtained at Simla; at Gulmurg in Kashmir; and at another place in the same State at 10,000 feet of elevation, but with no precise locality. The species is also contained in the Pinwill Collection from the N.W. Himalayas. I can find no information about the distribution of this rare bird beyond what the above-noted specimens afford. Gould received it from N. India.

### 39. **Ægithaliscus ioschistus.** *The Rufous-fronted Tit.*

Parus iouschistos, *Hodgs., Blyth, J. A. S. B.* xiii, p. 943 (1844); *Blyth, Cat.* p. 104.
Orites (?) jouschistos (*Hodgs.*), *Horsf. & M. Cat.* i, p. 375.

Ægithaliscus iouschistos (*Hodgs.*), *Jerd. B. I.* ii, p. 271; *Blanf. J. A. S. B.* xli, pt. ii, p. 58; *Hume, Cat.* no. 635.
Acredula jouschistos (*Hodgs.*), *Gadow, Cat. B. M.* viii, p. 58.

*Coloration.* Forehead, a broad band on the middle of the head, the sides of the neck, and a broad collar on the upper back fawn-colour; lores, under the eye, and a broad band on the side of the crown extending to the upper back and there blending with the band on the other side, black; ear-coverts blackish in front, rufous behind; upper plumage, wing-coverts, and the edges to the wings and tail ashy olive; primary-coverts and winglet dark brown; tail brown, the outer web of the outermost feather white, the next two with some white at the tip; chin and throat silvery white with the black bases of the feathers showing through, the chin and a stripe under the cheek blacker than the other parts; cheeks and entire lower plumage dark ferruginous.

The young have the lower plumage pale rufous, and the black and silvery feathers on the chin and throat are absent.

Bill black; legs yellow-brown; iris brown (*Jerdon*); iris yellow (*Blanf.*).

Length about 4; tail 2; wing 2·2; tarsus ·65; bill from gape ·35.

*Distribution.* Nepal, Sikhim, and Bhutan. Blanford remarks that it is probably found only in pine-forests. He observed it in Sikhim at elevations of 9000 and 10,000 feet.

## Genus **SYLVIPARUS**, Burton, 1835.

Resembles *Parus*, but has a proportionately smaller bill and a square or slightly-forked tail; plumage greenish; no ventral band.

### 40. **Sylviparus modestus.** *The Yellow-browed Tit.*

Sylviparus modestus, *Burton, P. Z. S.* 1835, p. 154; *Blyth, Cat.* p. 104; *Horsf. & M. Cat.* i, p. 373; *Jerd. B. I.* ii, p. 267; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 51; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 169; *Hume, Cat.* no. 632; *Scully, S. F.* viii, p. 322; *Marsh. Ibis,* 1884, p. 418; *Hume, S. F.* xi, p. 253.
Parus seriophrys, *Hodgs., Blyth, J. A. S. B.* xiii, p. 942 (1844).
Parus modestus (*Burt.*), *Gadow, Cat. B. M.* viii, p. 33.
*The Yellow-browed Flower-pecker,* Jerd.

*Coloration.* Upper plumage, sides of neck, and the wings and tail olive-green, the feathers of the crown centred with brown; sides of the head yellowish green slightly mottled with brown; a ring of feathers round the eye and a short eyebrow yellow; lower plumage yellow tinged with ochraceous; edge of wing and the under wing-coverts bright yellow.

Bill dark plumbeous, palest along the commissure and at base of the lower mandible; legs and feet plumbeous; iris very dark brown (*Davison*).

Length about 4; tail 1·4; wing 2·4; tarsus ·6; bill from gape ·4.

*Distribution.* Throughout the Himalayas from Kashmir to Bhutan. Stoliczka observed this Tit about Panji and Chini in the Sutlej Valley in summer, and subsequently at Leh on the Indus in Kashmir. Marshall notes it from Chamba. Scully states that it is common on the hills round the valley of Nepal at 6000 to 8000 feet. It is found in Sikhim and also in Bhutan. Crossing the Bramaputra River we find it recorded by Godwin-Austen from the Eastern Barail range just under the peaks of Japvo and Khunho.

Jerdon states that this bird extends to the plains and that he procured it at Ajanta at the edge of the hills south of Khandesh. I have not been able to find any other locality in the plains from which it has been obtained.

## Genus **MACHLOLOPHUS**, Cab., 1850.

Similar to *Parus*, but with a long pointed crest; a broad ventral band.

### *Key to the Species.*

*a.* Forehead bright yellow .................. *M. spilonotus*, p. 54.
*b.* Forehead black.
  *a'.* Of smaller size; tips of wing-coverts yellow ............................ *M. xanthogenys*, p. 55.
  *b'.* Of larger size; tips of wing-coverts white. *M. haplonotus*, p. 56.

### 41. **Machlolophus spilonotus.** *The Black-spotted Yellow Tit.*

Parus spilonotus, *Blyth, Cat.* p. 103 (1849); *Horsf. & M. Cat.* i, p. 371; *Gadow, Cat. B. M.* viii, p. 26.

Machlolophus spilonotus (*Bl.*), *Jerd. B. I.* ii, p. 281; *Wald. in Bl. Birds Burm.* p. 112; *Hume & Dav. S. F.* vi, p. 377; *Hume, Cat.* no. 649; *Oates, B. B.* i, p. 128; *Hume, S. F.* xi, p. 255; *Oates in Hume's N. & E.* 2nd ed. i, p. 37.

Parus subviridis, *Tick., Blyth, J. A. S. B.* xxiv, p. 267 (1855); *Blyth & Wald. Birds Burm.* p. 112.

*Muchetink-pho*, Lepch.

*Coloration.* Forehead, lores, a broad supercilium, a nape-patch, sides of the head and neck bright yellow; crown, crest, a streak behind the eye, a patch on either side the nape, chin, throat, and a broad mesial band down to the vent black; the longer feathers of the crest tipped with yellow; sides of the breast yellow; remainder of the lower plumage olive-yellow, purer next the black band; under tail-coverts mingled grey and white; under wing-coverts and axillaries yellowish white; back and scapulars yellow, each feather laterally margined with black; rump yellowish green; upper tail-coverts deep bluish grey; tail black, broadly edged with bluish grey and tipped white, the outer web of the outermost feather entirely white; lesser wing-coverts black, tipped with bluish grey; median and greater coverts and tertiaries black with broad white tips; primaries white at base, the outer ones edged with white, the others and the secondaries edged with bluish grey and the latter narrowly tipped white.

The young at first want the black margins to the feathers of the back, and the throat, breast, and ventral band are greenish.

Legs and feet deep plumbeous blue, the claws similar; gape white; bill black; iris deep brown (*Hume & Davison*).

Length about 5·5; tail 2·3; wing 3·1; tarsus ·8; bill from gape ·5.

*Distribution.* Nepal, Sikhim, and Assam at elevations of from 3000 feet to 6000 ft. or more. Also the Khási Hills, Manipur, Karennee, and Muleyit Mountain in Tenasserim.

*Habits, &c.* Mandelli found the nest at Lebong in Sikhim on the 15th June in a hole in a dead tree close to the ground. The nest was composed of fur, fern-stems, and moss, and contained three eggs, one of which only appears to have been preserved. It was white, marked, spotted, and speckled with pale reddish brown and with underlying spots of pale purple, and measured ·78 by ·55.

### 42. **Machlolophus xanthogenys.** *The Yellow-cheeked Tit.*

Parus xanthogenys, *Vigors, P. Z. S.* 1831, p. 23; *Gould, Cent.* pl. 29, fig. 1; *Blyth, Cat.* p. 103 (part.); *Horsf. & M. Cat.* i, p. 371; *Gadow, Cat. B. M.* viii, p. 24.

Machlolophus xanthogenys (*Vig.*), *Jerd. B. I.* ii, p. 279; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 52; *Blanf. J. A. S. B.* xli, pt. ii, p. 167; *Hume, N. & E.* p. 407; *Brooks, S. F.* iii, p. 253; *Hume, S. F.* iii, p. 492; *Hume, Cat.* no. 647; ? *Swinhoe & Barnes, Ibis,* 1885, p. 127; ? *Barnes, Journ. Bom. N. H. Soc.* i, p. 62; ? *Littledale, Journ. Bom. N. H. Soc.* i, p. 199; ?*Barnes, Birds Bom.* p. 249; *Oates in Hume's N. & E.* 2nd ed. i, p. 38.

*Coloration.* Lores, forehead, crown, crest, sides of the nape, a bar on the side of the neck, a broad streak behind the eye, chin, throat, centre of the breast, and a broad band down the middle of the abdomen black, the longer feathers of the crest tipped yellow; a distinct supercilium over the eye and ear-coverts, a nape-patch, the cheeks, ear-coverts, sides of the breast and of the upper abdomen bright yellow; remainder of the lower surface olive-yellow; under tail-coverts white; back and rump olive-green; upper tail-coverts slaty; scapulars and lesser wing-coverts black, broadly edged with olive-green; the other coverts black tipped with yellow; primary-coverts dark brown; primaries white at base, and the outer ones edged with white below the emarginations; secondaries edged with bluish and tipped with white; tertiaries broadly tipped with white; tail dark brown, suffused with ashy blue on the outer webs, all the feathers tipped white, and the outer web of the outermost pair entirely white.

Bill black; legs, feet, and claws lavender-blue; iris very dark brown (*Davison*).

Length about 5·5; tail 2·3; wing 2·8; tarsus ·7; bill from gape ·55.

*Distribution.* Throughout the Himalayas from Murree to Eastern

Nepal at elevations of from 4000 to 7000 ft. This Tit is stated to occur also at various localities in the plains; at Dúngarpur in Meywar and Jhálod in the Panch Mahals by Littledale; at Neemuch by Barnes; and at Mhow in Central India by Swinhoe and Barnes. There is no doubt, however, that some mistake has been made about its occurrence in these places, *M. haplonotus* having been confounded with it. A specimen procured by Swinhoe at Mhow and now in the British Museum, labelled *M. xanthogenys*, is unmistakably *M. haplonotus* with pure white tips to the wing-coverts.

*Habits, &c.* Breeds in April and May, constructing a pad-like nest of hair and fur in holes in trees and walls. It lays either four or five eggs, which are white or reddish white, speckled and spotted with brick-dust red. They measure ·74 by ·54.*

### 43. **Machlolophus haplonotus.** *The Southern Yellow Tit.*

Parus aplonotus, *Blyth, J. A. S. B.* xvi, p. 444 (1847); *Gadow, Cat. B. M.* viii, p. 25.
Parus jerdoni, *Blyth, J. A. S. B.* xxv, p. 445 (1856).
Machlolophus jerdoni (*Bl.*), *Jerd. B. I.* ii, p. 280; *Hume, S. F.* iii, p. 492.
Machlolophus aplonotus (*Bl.*), *Hume, S. F.* vii, p. 405; *id. Cat.* no. 648; *Barnes, Birds Bom.* p. 249; *Oates in Hume's N. & E.* 2nd ed. i, p. 39.

*Coloration.* Resembles *M. xanthogenys.* Differs in being larger in all its dimensions; in having the wing-coverts tipped with white instead of yellow; and in having the green and yellow portions of the plumage dull instead of bright. The second character is the most trustworthy. In addition to the above there is another character which is more or less constant: in *M. haplonotus* the eyebrow extends over the ear-coverts only, and not over the eye.

The young have the throat, breast, and ventral band greenish brown, and the crown of the same colour as the back with brown shaft-streaks.

Iris deep brown; legs and feet bluish lead-colour; bill black (*Butler*).

Length about 6; tail 2·4; wing 3; tarsus ·75; bill from gape ·6.

*Distribution.* Throughout the peninsula of India south of a line drawn from Abu to Pareshnath in Behar, up to elevations of 6000 feet or so. The species does not appear to be found west of Abu nor east of Pareshnath.

*Habits, &c.* Breeds from May to September, making a small nest of moss and hair in holes of trees and laying five eggs, which are white spotted all over with red; the dimensions of the eggs are not recorded.

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* PARUS GRIFFITHII, *Blyth, J. A. S. B.* xvi, p. 445, described from a drawing, has never yet been identified. Its origin is so obscure and its existence so doubtful that it may well be omitted from this work. Its description is reproduced in 'Stray Feathers,' vol. vii, p. 445.

## Genus LOPHOPHANES, Kaup, 1829.

Similar to *Parus*, but crested and with the tail square or slightly forked; no ventral band. From *Machlolophus* the present genus is distinguished by the square or slightly forked tail and by the absence of a ventral band.

### *Key to the Species.*

| | |
|---|---|
| *a*. With a double row of spots on the wing-coverts. | |
| *a'*. Abdomen iron-grey | *L. melanolophus*, p. 57. |
| *b'*. Abdomen ferruginous | *L. æmodius*, p. 58. |
| *b*. With no spots on the wing-coverts. | |
| *c'*. Chin and throat black or blackish. | |
| *a''*. Breast and abdomen ferruginous | *L. rubidiventris*, p. 58. |
| *b''*. Breast black, abdomen ashy olive | *L. rufinuchalis*, p. 58. |
| *c''*. Upper breast only black, lower breast and abdomen ashy olive | *L. beavani*, p. 59. |
| *d'*. Chin and throat fulvous-grey | *L. dichrous*, p. 59. |

### 44. **Lophophanes melanolophus.** *The Crested Black Tit.*

Parus melanolophus, *Vigors, P. Z. S.* 1831, p. 23; *Gould, Cent.* pl. 30, fig. 2; *Blyth, Cat.* p. 104; *Horsf. & M. Cat.* p. 372; *Biddulph, Ibis,* 1881, p. 72; *Scully, Ibis,* 1881, p. 568; *Gadow, Cat. B. M.* viii, p. 28.

Lophophanes melanolophus (*Vig.*), *Jerd. B. I.* ii, p. 273; *Hume, N. & E.* p. 403; *Brooks, S. F.* iii, p. 253; *Hume, Cat.* no. 638; *Wardlaw Ramsay, Ibis,* 1880, p. 61; *Oates in Hume's N. & E.* 2nd ed. i, p. 40.

*Coloration.* Forehead, crown, crest, hind neck, lores, chin, throat, and breast deep black; a large patch on the nape white; the ear-coverts, extending down the sides of the neck, the cheeks, and under the eye white; upper plumage iron-grey, the exposed parts of the wings and tail paler; the middle and lower series of the wing-coverts, the tertiaries, and some of the secondaries tipped with white, the tips of the coverts more or less tinged with rufous; lower plumage from the breast downwards iron-grey, the under wing-coverts, axillaries, and a portion of the sides of the body chestnut; under tail-coverts chiefly chestnut.

The young have the head brown; the upper plumage greyish brown; the wing-spots very rufous; the chin, throat, and breast brown; the remainder of the lower plumage fulvous-brown with the axillaries pale chestnut.

Bill black; legs, feet, and claws dark bluish grey; iris brown (*Davison*).

Length about 4·3; tail 1·7; wing 2·5; tarsus ·6; bill from gape ·4.

*Distribution.* The Himalayas from Kumaon to Murree and Gilgit at elevations of from 6000 to 12,000 feet, extending into Afghanistan.

*Habits, &c.* Breeds at 6000 to 8000 feet from March to June, constructing a nest of fur and wool, resting on a foundation of moss, in a hole in a tree, wall, or rock. The eggs, six to eight in number, are pinkish white, blotched and spotted with bright brownish red; they measure about ·61 by ·47.

### 45. **Lophophanes æmodius.** *The Himalayan Cole-Tit*

Parus æmodius, *Hodgs., Blyth, J. A. S. B.* xiii, p. 943 (1844); *Jerd. B. I.* ii, p. 276; *Gadow, Cat. B. M.* viii, p. 41.
Lophophanes æmodius (*Hodgs.*), *Blanf. J. A. S. B.* xli, pt. ii. p. 57; *Hume, Cat.* no. 642.
Lophophanes humii, *Brooks, J. A. S. B.* xlii, p. 57 (1873).

*Coloration.* Forehead, crown, crest, lores, sides of the head and nape, chin, throat, and sides of the neck black; cheeks, ear-coverts, and a nape-patch white; upper plumage and exposed parts of wings and tail bluish ashy; the rump tinged with ferruginous, the median and greater coverts tipped with white, forming two wing-bars, the tertiaries and later secondaries minutely tipped with white; lower plumage, axillaries, and under wing-coverts ferruginous.

Iris dark brown; legs leaden-grey; bill black (*Blanford*).

Length about 4·2; tail 1·7; wing 2·4; tarsus ·65; bill from gape ·4.

*Distribution.* Sikhim and Nepal, from which latter State there are some of Hodgson's specimens in the British Museum. It is apparently found at high elevations only.

### 46. **Lophophanes rubidiventris.** *The Rufous-bellied Crested Tit.*

Parus rubidiventris, *Blyth, J. A. S. B.* xvi, p. 445 (1847); *id. Cat.* p. 104; *Horsf. & M. Cat.* i, p. 372; *Gadow, Cat. B. M.* viii, p. 30.
Lophophanes rubidiventris (*Blyth*), *Jerd. B. I.* ii, p. 274; *Hume, Cat.* no. 639.

*Coloration.* Forehead, crown, nape, hind neck, lores, chin, and throat dark brown or blackish, but never the deep black of *L. melanolophus*, *L. rufinuchalis*, and *L. beavani*; cheeks, ear-coverts, the sides of the neck, and a large nuchal spot white; upper plumage olive-brown; the wings and tail brown with bluish-ashy edges, and the upper tail-coverts tipped with fulvous; lower plumage and under wing-coverts ferruginous.

In the dry state the bill is black and the legs dark brown.

Length about 4·5; tail 1·9; wing 2·5; tarsus ·7; bill from gape ·5.

*Distribution.* Nepal, where procured by Hodgson. In the Pinwill Collection there are specimens from the N.W. Himalayas, which locality probably refers to Kumaon.

### 47. **Lophophanes rufinuchalis.** *The Simla Black Tit.*

Parus rufonuchalis, *Blyth, J. A. S. B.* xviii, p. 810 (1849); *Blyth, Cat.* p. 103; *Biddulph, Ibis,* 1881, p. 72; *Scully, Ibis,* 1881, p. 568; *Gadow, Cat. B. M.* viii, p. 29.
Lophophanes rufonuchalis (*Blyth*), *Jerd. B. I.* ii, p. 274; *Hume & Henders. Lah. to Yark.* p. 229; *Brooks, S. F.* iii, p. 253; *Hume, Cat.* no. 640; *Wardlaw Ramsay, Ibis,* 1880, p. 62; *Biddulph, Ibis,* 1882, p. 281; *Oates in Hume's N. & E.* 2nd ed. i, p. 42.

*Coloration.* Forehead, crown, crest, hind neck, lores, base of bill, chin, throat, breast, and upper part of the abdomen, produced on to the lower part of the abdomen as a broad band, black; a large spot on the nape white, tinged with ferruginous posteriorly; wings and tail bluish ashy; under the eye, ear-coverts, and a band down the neck white; back, scapulars, rump, and upper tail-coverts olive-green; lower abdomen and sides of body ashy olive; under tail-coverts and axillaries chestnut; under wing-coverts pale fulvous.

The young are dark brown where the adult is black and the axillaries and under tail-coverts are paler rufous.

Legs, feet, and bill black; iris brown (*G. Henderson*).

Length about 5; tail 2·2; wing 3; tarsus ·75; bill from gape ·55.

*Distribution.* The Himalayas from Gurwhal to Gilgit, at elevations of from 7000 to 10,000 or 12,000 feet, occasionally in winter descending to 5000 feet.

*Habits, &c.* Brooks found the nest containing newly-hatched young near Derali in the valley of the Bhagirati river under a large stone in the middle of May. This Tit also breeds in the pine-forests of Gilgit.

### 48. **Lophophanes beavani.** *The Sikhim Cole-Tit.*

Lophophanes beavani, *Blyth, Jerd. B. I.* ii, p. 275 (1863); *Blanf. J. A. S. B.* xli, pt. ii. p. 57; *id. S. F.* viii, p. 183; *Hume, Cat.* no. 641; *id. S. F.* viii, p. 189.
Parus atkinsoni, *Jerd. B. I.* ii, p. 276 (1863); *Hume, Cat.* no. 643.
Parus beavani (*Bl.*), *Gadow, Cat. B. M.* viii, p. 29.

*The Sikhim Cole-Tit*; *the Sikhim Black Tit,* Jerd.; *Lho Tasso,* Lepch.

*Coloration.* Forehead, crown, crest, hind neck, lores, chin, throat, and upper breast deep black; ear-coverts, the sides of the neck, and under the eye white tinged with fulvous; a large nape-spot white; upper plumage and wing-coverts iron-grey; the wings and tail narrowly edged with paler grey; lower plumage ashy olive, tinged more strongly with ashy near the margin of the breast; axillaries, under wing- and tail-coverts chestnut.

The young have the black of the adult replaced by dark brown; the upper plumage is brown and the lower tinged with fulvous.

Iris brown; legs leaden grey; bill black (*Blanford*).

Length nearly 5; tail 1·9; wing 2·4 to 2·8; tarsus ·75; bill from gape ·5.

*Distribution.* Sikhim at considerable elevations. Also Nepal, where both Hodgson and Mandelli procured this species.

### 49. **Lophophanes dichrous.** *The Brown Crested Tit.*

Parus dichrous, *Hodgs., Blyth, J. A. S. B.* xiii, p. 943 (1844); *Blyth, Cat.* p. 104; *Horsf. & M. Cat.* i, p. 372; *Gadow, Cat. B. M.* viii, p. 33.
Lophophanes dichrous (*Hodgs.*), *Jerd. B. I.* ii, p. 273; *Blanf. J. A. S. B.* xli, pt. ii, p. 56; *Hume, Cat.* no. 637.

*Coloration.* Upper plumage brownish grey; the wings very narrowly margined with hoary grey; forehead and sides of the head pale fulvous mottled with brown; a half-collar round the hind neck, interrupted at the nape, cream-colour; chin and throat fulvous grey; lower plumage ochraceous.

Bill dusky bluish; feet plumbeous; iris brick-red (*Jerdon*).

Length about 4·5; tail 1·9; wing 2·7; tarsus ·75; bill from gape ·45.

*Distribution.* The Himalayas from Sikhim to Dharmsala. I have seen no specimen from any place north of this latter and can find no grounds for believing that the species occurs in Kashmir as suggested by Jerdon on the evidence afforded by Adams. Blanford found it in Sikhim at elevations of from 8000 to 13,000 feet. It extends into the mountainous parts of China.

## Subfamily PARADOXORNITHINÆ.

The Crow-Tits have undoubted close affinities with the Tits and through them with the Crows, but they form a very isolated group in some respects, all of them being restricted to the mountains and hills of Northern and Eastern India and some of the mountain-ranges of China.

The position of these birds has been much disputed, but looking to the facts that they have ten primaries, that the young are identical in plumage with the adult, and that the nostrils are completely hidden by stiff bristles, their location with the Crows and Tits seems the proper course to adopt.

The three species regarding the nidification of which anything is known construct cup-shaped nests in trees and lay eggs which are marked with yellowish brown and purple.

The plumage of all the species is copious and soft, and they have a very ample crest, not of great length, but very thick. With one exception the bills of all the genera are extremely deep, the depth being greater than the length of the bill. The culmen is very rounded transversely, and the margins of the mandibles in most of the species are curiously sinuated.

Their food, judging from what Mr. Gammie tells us, is not grain and seeds but insects, and consequently there is nothing anomalous in their habits in this respect as was at one time thought to be the case.

*Key to the Genera.*

*a.* Tail longer than wing.
  *a'.* Tail less graduated; the outermost pair of feathers fully three quarters length of tail. CONOSTOMA, p. 60.
  *b'.* Tail more graduated; the outermost pair of feathers not exceeding two thirds length of tail.
    *a''.* Height of bill greater than its length; commissure with deep sigmoid curve .. PARADOXORNIS, p. 61.
    *b''.* Height of bill not greater than its length; commissure with a slight sigmoid curve .......................... SUTHORA, p. 63.
*b.* Tail equal to or shorter than wing ........ SCÆORHYNCHUS, p. 68.

### Genus **CONOSTOMA**, Hodgs., 1841.

The genus *Conostoma* contains only one species, the largest member of the subfamily. It is characterized by a tail longer than the wing, and the tail-feathers are considerably less graduated than in the next two genera. It is found at very high elevations.

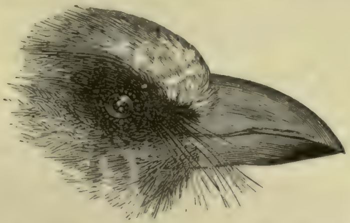

Fig. 21.—Head of *C. æmodium.*

### 50. **Conostoma æmodium.** *The Red-billed Crow-Tit.*

Conostoma æmodius, *Hodgs. J. A. S. B.* x, p. 857, pl. (1841); *Blyth, Cat.* p. 101.

Conostoma æmodium, *Hodgs., Horsf. & M. Cat.* i, pp. 213, 377; *Jerd. B. I.* ii, p. 10; *Blanf. J. A. S. B.* xli, pt. ii, p. 46; *Hume, N. & E.* p. 237; *id. Cat.* no. 381; *Sharpe, Cat. B. M.* vii, p. 485; *Oates in Hume's N. & E.* 2nd ed. i, p. 42.

*The Red-billed Jay-Thrush,* Jerd.; *Lho-rannio-pho,* Lepch.

*Coloration.* Lores and feathers in front of the eyes dark brown; forehead greyish white; upper plumage olive-brown with a rufous tinge; outer edges of primaries ashy, of the secondaries rufous, and the tertiaries, with the tips of the secondaries, ashy; tail ashy grey, more or less washed with rufous along the middle of the feathers; chin, throat, and sides of head brown, with a vinous tinge, becoming paler on the rest of the lower plumage.

Bill dull orange; legs slaty grey; iris brown (*Jerdon*).

Length about 12; tail 5·5; wing 5·2; tarsus 1·5; bill from gape 1.

*Distribution.* Nepal and Sikhim, apparently at very high elevations. Blanford met with it at 11,000 feet on the Chola range, and the nest has been found on two occasions at 10,000 feet in Sikhim. This bird extends to the high mountains on the frontier of China and Tibet.

*Habits, &c.* Constructs a hemispherical nest of stems and blades of grass and bamboo-leaves on a branch of a bamboo in May. The eggs, probably three in number, are dull white, blotched and streaked with yellowish brown and spotted about the larger end with inky purple; size 1·11 by ·8.

### Genus **PARADOXORNIS**, Gould, 1836.

The genus *Paradoxornis*, as I restrict it, contains two species found in India. It differs from the last genus by its more graduated tail and by its very deep bill. Very little is known of the habits and nothing whatever of the mode of nidification of either species.

Jerdon remarks of *P. flavirostris* that he procured it in a pine wood and that it had partaken of seeds. It does not, however, appear to be the usual habit of these birds to eat seeds or to be found in forests.

### *Key to the Species.*

| | |
|---|---|
| *a.* Throat barred with black and white, bordered below by a black band .................., | *P. flavirostris,* p. 62. |
| *b.* Throat pale fulvous, with a few delicate arrow-head-shaped marks and no band below .... | *P. guttaticollis,* p. 62. |

### 51. **Paradoxornis flavirostris.** *The Yellow-billed Crow-Tit.*

Paradoxornis flavirostris, *Gould, P. Z. S.* 1836, p. 17; *Horsf. & M. Cat.* i, p. 376; *Jerd. B. I.* ii, p. 4; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 268, xlv, pt. ii, p. 72; *Hume, S. F.* ii. p. 457, v, p. 30; *Cat.* no. 373; *Sharpe, Cat. B. M.* vii, p. 496; *Hume, S. F.* xi, p. 134.
Bathyrhynchus brevirostris, *McClell. Ind. Rev.* 1838, p. 513, fig.

*The Yellow-billed Finch-Thrush,* Jerd.

*Coloration.* Forehead, crest, nape, sides of neck, and hinder part of ear-coverts dull chestnut; lores black; feathers round the eye and a patch under it white, the bases of the feathers more or less black; anterior two thirds of ear-coverts and the point of the chin black; cheeks and chin white barred with black; throat black; upper plumage fulvous-brown, rufous on the tail and visible portions of wings; lower plumage fulvous.

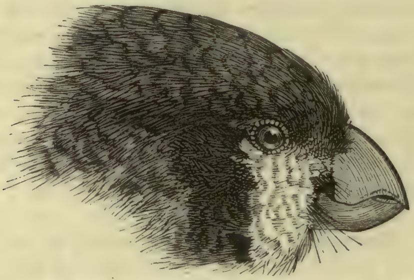

Fig. 22.—Head of *P. flavirostris.*

Bill bright yellow; legs plumbeous; iris red-brown (*Jerdon*).

Length about 7·5; tail 4·2; wing 3·5; tarsus 1·2; bill from gape ·6.

*Distribution.* Distributed throughout the Terais of Nepal, Sikhim, and Bhutan, and ranging as far as Dibrugarh in Assam. Found also in the Khási hills, Sylhet and Cachar in suitable localities, which appear to be thickets of reeds.

### 52. **Paradoxornis guttaticollis.** *Austen's Crow-Tit.*

Paradoxornis guttaticollis, *A. David, N. Arch. Mus.* vii, *Bull.* p. 14 (1871); *Sharpe, Cat. B. M.* vii, p. 497.

Paradoxornis austeni, *Gould, B. As.* pt. xxiv, pl. 73 (1874); *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 159; *Hume, S. F.* iii, p. 392; *Cat.* no. 373 bis.

*Coloration.* Resembles *P. flavirostris.* Differs in having the cheeks, chin, throat, and upper part of breast pale fulvous-white, with numerous delicate arrowhead-shaped marks of black, and the remainder of the lower plumage of the same colour but without the marks; the head and crest of a paler chestnut; the bill of about half the size and the legs much feebler.

Bill yellow; iris brown or hazel; legs and claws green (*Cockburn*).

Length about 7·5; tail 4; wing 3·2; tarsus 1·05; bill from gape ·5.

*Distribution.* Occurs in Sylhet, and on the Khási and Nága Hills, in which last locality Godwin-Austen obtained this species at 6000 feet elevation. It extends into Western China.

## Genus **SUTHORA**, Hodgs., 1838.

The genus *Suthora* contains seven Indian birds which with one exception are of very small size. Jerdon and others have assigned these seven birds to three genera, *Heteromorpha*, *Chleuasicus* and *Suthora*. I consider them absolutely congeneric and have failed to find a single structural character by which to separate them.

This genus differs from the last in its relatively smaller bill (which is also of less depth as compared with its length) and in the commissure being much less curved. From the next genus it may be separated by its much longer tail.

Many of these birds are very prettily coloured, and they appear to resemble the Tits in their habits, feeding on insects, for which they search the branches and leaves of trees. Nothing whatever is known about their nidification.

### *Key to the Species.*

| | |
|---|---|
| *a.* A well-defined large black or brown supercilium. | |
| *a′* Upper plumage olive-brown | *S. unicolor,* p. 64. |
| *b′.* Upper plumage orange-brown. | |
| *a* . Ear-coverts orange-brown | *S. humii,* p. 64. |
| *b* . Ear-coverts slaty-blue. | |
| *a‴.* Lower plumage orange-fulvous | *S. nepalensis,* p. 65. |
| *b‴.* Lower plumage bluish-grey | *S. poliotis,* p. 65. |
| *b.* Supercilium very small or absent. | |
| *c′.* Wings edged with bright chestnut | *S. fulvifrons,* p. 66. |
| *d′.* Wings edged with colour of back. | |
| *c″.* No supercilium whatever | *S. ruficeps,* p. 67. |
| *d″.* A short black supercilium | *S. atrisuperciliaris,* p. 67. |

### 53. **Suthora unicolor.** *The Brown Crow-Tit.*

Heteromorpha unicolor, *Hodgs. J. A. S. B.* xii, p. 448 (1843); *Jerd. B. I.* ii, p. 6; *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Hume, Cat.* no. 376.
Paradoxornis unicolor (*Hodgs.*), *Horsf. & M. Cat.* i, p. 376.
Suthora unicolor (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 493.
*The Brown Finch-Thrush,* Jerd.; *Lho-ramnio-pho,* Lepch.

*Coloration.* Forehead and crest brown tinged with rufous; lores and a supercilium reaching to the nape black; chin and sides of head vinous-brown; throat and sides of neck greyish brown; upper plumage olive-brown, strongly tinged with rufous on tail and visible portions of wings; breast and lower plumage dull fulvous.

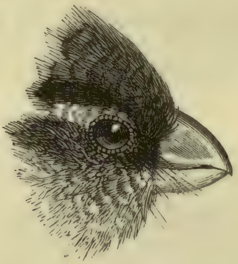

Fig. 23.—Head of *S. unicolor.*

Iris hoary grey; legs and feet greenish grey; bill fleshy yellowish (*Hume, MS.*).

Bill orange-yellow; legs slaty grey; iris brown (*Jerdon*).

Length about 8; tail 4·2; wing 3·3; tarsus 1·2; bill from gape ·6.

*Distribution.* The higher regions of Nepal and Sikhim. Jerdon met with this species near Darjiling at 10,000 feet, and Blanford in the Lachung Valley between 7000 and 8000 feet of elevation. It extends to the mountains which lie between China and Tibet.

### 54. **Suthora humii.** *The Black-fronted Crow-Tit.*

Suthora nipalensis, *Hodgs. apud Blyth, Cat.* p. 102; *Jerd. B. I.* ii, p. 8; *Hume, Cat.* no. 378.
Suthora poliotis, *Blyth, apud Horsf. & M. Cat.* i, p. 379.
Suthora humii, *Sharpe, Cat. B. M.* vii, p. 487 (1883).
*The Black-fronted Tit-Thrush,* Jerd.; *Suthora,* Nepal.

*Coloration.* Forehead, crown, ear-coverts, back, wing-coverts, and rump orange-brown; upper tail-coverts orange-red; tail orange-rufous, broadly terminated with black; primary-coverts black; quills bright orange-red at base, the earlier primaries white externally, the others black with some white near the tips; secondaries margined with orange on the outer webs and tipped white; a broad supercilium from the bill to the nape black; lores, cheeks, above and below the eye and a small indistinct eyebrow white; sides of the neck slaty-blue; chin and upper throat black margined with white; lower throat, breast, and centre of abdomen white; sides of body, vent, and under tail-coverts orange-fulvous.

Length about 4·5; tail 2·4; wing 1·9; tarsus ·65; bill from gape ·3.

This is the bird described by Jerdon under the name of *S. nipalensis*, Hodgs., "with ear-coverts fulvous." It is, however, a very different bird to true *S. nepalensis* described below. The present species was known to Hodgson and was figured by him from Darjiling specimens. He appears, however, to have regarded it as identical with *S. poliotis*, a species described by Blyth a short time previously from Cherra Poonjee, and he consequently published no description of it, merely writing under the drawing *Temnoris v. Suthora pictifrons*. As this name was never published, Sharpe has very properly renamed the bird in his 'Catalogue.'

*Distribution*. Sikhim, where this species appears to be common at and above Darjiling.

### 55. **Suthora nepalensis.** *The Ash-eared Crow-Tit.*

Suthora nipalensis, *Hodgs. Ind. Rev.* ii, p. 32 (1838); *Horsf. & M. Cat.* i, p. 378; *Sharpe, Cat. B. M.* vii, p. 488.
Temnoris atrifrons, *Hodgs. P. Z. S.* 1845, p. 31.
Suthora poliotis, *Bl. apud Jerd. B. I.* ii, p. 9; *Hume, Cat.* no. 379.
*The Ash-eared Tit-Thrush*, Jerd.

*Coloration*. Forehead, crown, and nape smoky-grey; a very broad black supercilium from forehead to nape; lores, round the eye, and a short broad eyebrow white; remainder of the side of the head slaty-blue; upper plumage and wing-coverts orange-brown; primary-coverts black; primaries with hoary outer webs, tinged with chestnut at base; the other quills chiefly chestnut on the outer webs and tipped white on both webs; tail chestnut, broadly tipped blackish; point of the chin black; throat rusty, with black bars showing through; lower plumage orange-fulvous.

Length about 4·3; tail 2·3; wing 1·9; tarsus ·65; bill from gape ·25.

This is the bird described by Jerdon under the name of *S. poliotis*, Blyth, with the lower plumage uniform rusty and the chin barred with black and rust colour. It is figured by Hodgson. The true *S. poliotis* is a distinct bird, differing among other things in having the lower plumage grey and the throat entirely black.

*Distribution*. Nepal, where this Crow-Tit appears to have been very little observed, the only specimens of it that I have been able to examine being four skins in the Hodgson Collection in the British Museum.

### 56. **Suthora poliotis.** *The Ashy-breasted Crow-Tit.*

Suthora poliotis, *Blyth, J. A. S. B.* xx, p. 522 (1851); *Sharpe, Cat. B. M.* vii, p. 487.

Suthora munipurensis, *Godw.-Aust. & Wald. Ibis*, 1875, p. 250; *Hume, S. F.* iv, p. 216; *id. Cat.* no. 380 bis; *Gould, B. As.* iii, pl. 69; *Hume & Dav. S. F.* vi, p. 258.
Suthora daflaensis, *Godw.-Aust. A. M. N. H.* (4) xvii, p. 32 (1876); *Hume, S. F.* iv, p. 489, v, p. 138.

*Coloration.* Upper plumage bright orange-brown; a broad black supercilium extending to the nape and a narrow white line below it; lores, cheeks, and under the eye white; ear-coverts and sides of the neck slaty-blue; a streak of fulvous behind the eye and over the front part of the ear-coverts; chin and throat black; lower plumage bluish grey, becoming whitish on the abdomen and under tail-coverts; primary-coverts black; primaries with hoary outer webs tinged with chestnut at base, the other quills chiefly chestnut on the outer webs and tipped white; tail chestnut, broadly tipped blackish.

Length about 4; tail 2·1; wing 1·8; tarsus ·65; bill from gape ·3.

This species was not known to Jerdon. He was under the impression that the Nepal and Cherra Poonjee birds were identical, but under the name of *S. poliotis* he described the true *S. nepalensis* only. The two birds are of course very distinct and cannot be confounded together.

*Distribution.* Blyth described this species from a specimen procured at Cherra Poonjee, and my description is taken from two birds obtained by Godwin-Austen at Samma in the Eastern Nága hills. The species does not appear, as yet, to have been discovered in any other part of the Empire *.

### 57. **Suthora fulvifrons.** *The Fulvous-fronted Crow-Tit.*

Suthora fulvifrons, *Hodgs., Blyth, J. A. S. B.* xiv, p. 579 (1845); *Blyth, Cat.* p. 102; *Horsf. & M. Cat.* i, p. 378; *Jerd. B. I.* ii, p. 9; *Hume, Cat.* no. 380.
Temnoris fulvifrons, *Hodgs. P. Z. S.* 1845, p. 31.
Chleuasicus fulvifrons (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 494.
*Fulvous-fronted Tit-Thrush,* Jerd.

*Coloration.* Forehead, middle portion of the crown, a very short supercilium, cheeks, chin, throat, breast, sides of the neck, and the under tail-coverts bright fulvous; a broad band from the lores over the eye to the nape, the back, rump, and lesser wing-coverts olive-yellow; upper tail-coverts fulvous; greater wing-coverts edged with chestnut; quills with the outer webs chestnut, except the basal halves of those of the primaries, which are hoary; tail blackish, the outer webs, except near the tips, more or less bright chestnut; abdomen deep grey.

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* As this was going to press Count Salvadori kindly sent me a specimen of a *Suthora* from Karennee for examination. It has the abdomen and under tail-coverts rather bright fulvous, but I cannot discover that it differs from *S. poliotis* in any other respect. In justice, however, to Count Salvadori, who has named this species *S. feæ*, I am bound to say that the two specimens of *S. poliotis* in the British Museum, the only two specimens available for comparison, are by no means good skins, and the various minute markings on the head are not very clear. *S. feæ* may therefore be an excellent species. Count Salvadori thus describes it:—

SUTHORA FEÆ, nov. sp.

*Suthora* S. manipurensi, *Godw.-Aust. et Wald., similis, sed tænia supraoculari rufa, minime alba, regione subocolari postica minime alba et rufo marginata, lateribus et subcaudalibus læte rufescentibus facile distinguenda.*

Long. tot. $0^{m}$,110; al $0^{m}$,045; caud. $0^{m}$,053; rostri $0^{m}$,007; tarsi $0^{m}$,020. (Ann. Mus. Civ. Gen. (2) vii (xxvii) p. 364, 1 Luglio, 1889.)

Bill pale; legs light brown (*Jerdon*).

Length nearly 5; tail 2·6; wing 2·2; tarsus ·8; bill from gape ·3.

*Distribution.* Nepal and Sikhim. Very little is known about this bird, and it is very rare in collections.

### 58. **Suthora ruficeps.** *The Smaller Red-headed Crow-Tit.*

Chleuasicus ruficeps, *Blyth, J. A. S. B.* xiv, p. 578 (1845); *Jerd. B. I.* ii, p. 7; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 196; *Hume, Cat.* no. 377; *Sharpe, Cat. B. M.* vii, p. 494.

Suthora ruficeps (*Blyth*), *Blyth, Cat.* p. 102; *Horsf. & M. Cat.* i, p. 380.

*The Red-headed Tit-Thrush*, Jerd.; *Chongto-phep-pho*, Lepch.

*Coloration.* Forehead, crest, and nape with the hind neck bright chestnut; sides of the head and of the neck paler; lower plumage white, tinged with pink on the breast; upper plumage rufous-brown, deeper on the tail and exposed parts of the wings; shafts of chin-feathers distinctly black.

Bill whitish horny; legs greenish plumbeous; iris red-brown (*Jerdon*).

Length about 6; tail 3·2; wing 3; tarsus ·95; bill from gape ·55.

This bird is almost an exact counterpart of *Scœorhynchus ruficeps*, differing from it chiefly in its blunter bill and more graduated tail.

*Distribution.* Sikhim; and Godwin-Austen notes the species from Baladhan in Cachar. It appears to be a very rare bird.

### 59. **Suthora atrisuperciliaris.** *The Black-browed Crow-Tit.*

Chleuasicus ruficeps, var. atrosuperciliaris, *Godw.-Aust. P. A. S. B.* 1877, p. 147; *Hume, S. F.* v, p. 499; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 15.

Chleuasicus ruficeps, *Bl. apud Anders. Yunnan Exped., Aves*, p. 638, pl. xlvii, fig. 2.

*Coloration.* "Bright ferruginous on the head, same colour, paler, on the nape and ear-coverts; back and wings pale olive-brown; quills tinged rufous; tail brown; a narrow black streak over the eye; beneath dull white with an earthy tinge. Legs dark plumbeous.

"Length about 6; wing 2·85; tail 3·3; tarsus 0·90; bill at front 0·43 inches.

"Larger than *Ch. ruficeps* and not so white below." (*Godwin-Austen.*)

*Distribution.* Discovered at Sadiya, Upper Assam; and procured at Ponsee, on the borders of Western China, by Anderson.

This species appears to me to be fairly distinct from *S. ruficeps*, and to be its eastern representative. I have examined four specimens of the Sikhim bird and find that in none of them is there more than a faint duskiness over the eye; in no case is there anything approaching the black shown on Anderson's plate of *S. atrisuperciliaris*. Hume's suggestion that this latter is the male and *S. ruficeps* the female is, I think, untenable in the face of the fact that all the other species of this family have the two sexes alike.*

## Genus **SCÆORHYNCHUS**, n. gen.

The two birds which I propose to place in this genus (with *S. ruficeps* as the type) are not congeneric with any of the birds previously noticed. Jerdon and others have placed them in *Paradoxornis*, but in my opinion wrongly so. They are characterized by a very short tail, in fact they are the only Crow-Tits in which the tail is not longer than the wing. The tail is, moreover, very slightly graduated, the outer feather being quite five sixths the whole length of the tail.

The birds of this genus appear to frequent reeds and tall grass.

*Key to the Species.*

*a*. Crown of head rufous; chin white ............ *S. ruficeps*, p. 68.
*b*. Crown of head grey; chin black .............. *S. gularis*, p. 69.

### 60. **Scæorhynchus ruficeps.** *The Larger Red-headed Crow-Tit.*

Paradoxornis ruficeps, *Blyth, J. A. S. B.* xi, p. 177 (1842), xii, p. 947, pl. (1843); *Horsf. & M. Cat.* i, p. 377; *Jerd. B. I.* ii, p. 5; *Blyth, B. Burm.* p. 117; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 196; *Hume & Dav. S. F.* vi, p. 257; *Hume, Cat.* no. 375; *Oates, B. B.* i, p. 130.
Heteromorpha ruficeps (*Blyth*), *Blyth, Cat.* p. 102.
Suthora ruficeps (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 491.
Scæorhynchus ruficeps (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 43.

*The Red-headed Finch-Thrush*, Jerd.; *Chongto-phep-pho*, Lepch.

*Coloration.* Head, nape, upper back, lores, cheeks, and ear-coverts chestnut; upper plumage, tail, and exposed parts of wings olive-brown, tinged with rufous; the whole lower plumage white, tinged with brown on the sides of the body, vent, thighs, and under tail-coverts.

Iris reddish brown; upper mandible brown; lower mandible flesh-colour; eyelids and mouth bluish; legs plumbeous; claws horn-colour.

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* Suthora brunnea, *Anderson, P. Z. S.* 1871, p. 211, was procured by Dr. John Anderson at Momein in Chinese Territory at an elevation of 6000 feet. It will doubtless be found in the mountains of Upper Burma near Bhamo, and I append a description of the bird.

The whole head and neck all round with the breast chestnut-brown, suffused with vinaceous below; the upper plumage, wing-coverts, tail, and exposed parts of closed wing olive-brown; lower plumage yellowish brown. Bill in dry skin yellowish, with the culmen intense black; legs brown.

Length about 5; tail 2·5; wing 2·1; tarsus ·8; bill from gape ·4.

Length about 7·5 inches; tail 3·5; wing 3·5; tarsus 1·15; bill from gape ·6.

Specimens from Assam, Karennee, and Tenasserim have the lower plumage suffused with fulvous.

*Distribution.* Sikhim and Bhutan, extending through Assam to Dibrugarh. This bird has also been procured at Shillong; on the Hemeo Peak, N. Cachar, and in Karennee at 2500 ft. Blyth received it from Arrakan. Davison met with it at Pahpoon in Tenasserim, and there is a specimen in the Hume Collection collected at Thoungyah, much further south. Jerdon states that this species occurs in Nepal, but on what authority is not known.

*Habits, &c.* Breeds in Sikhim in May, constructing a cup-shaped nest of grass-stalks coated externally with a few cobwebs and lined inside with strips of bamboo-stems. The eggs, three in number, are white, spotted and blotched with yellowish brown, with some purplish-grey shell-marks; size ·83 by ·63.

### 61. **Scæorhynchus gularis.** *The Hoary-headed Crow-Tit.*

Paradoxornis gularis, *Horsf.*, *Gray, Gen. B.* ii, p. 389, pl. xciv, f. 2 (1849); *Horsf. & M. Cat.* i, p. 377; *Jerd. B. I.* ii, p. 5; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 103; *Wald. in Blyth, B. Burm.* p. 117; *Hume, Cat.* no. 374; *Oates, B. B.* i, p. 131.

Paradoxornis (Heteromorpha) caniceps, *Blyth, J. A. S. B.* xviii, p. 810 (1849).

Heteromorpha (? Paradoxornis) caniceps (*Blyth*), *Blyth, Cat.* p. 102.

Suthora gularis (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 492.

Scæorhynchus gularis (*Horsf.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 44.

*The Hoary-headed Finch-Thrush*, Jerd.; *Chongto-phep-pho*, Lepch.

*Coloration.* Forehead, nasal plumes, a supercilium from the forehead to the nape and the chin black; lores and round the eye, cheeks and lower plumage white, the sides of the breast and abdomen washed with fulvous; ear-coverts pale grey; crown and nape dark grey; upper plumage, tail, and visible portions of wings rufous-brown.

Bill dark yellow; legs slaty-brown (*Godwin-Austen*).

Length about 6; tail 3·1; wing 3·5; tarsus 1; bill from gape ·6.

*Distribution.* Occurs in Sikhim and Bhutan at elevations of from 3000 to 8000 feet. It has also been obtained at Asalu in the Khási Hills by Godwin-Austen, and in Karennee at 5600 feet by Wardlaw Ramsay. It extends into China.

*Habits, &c.* The nest and eggs of this species, judging from what little is on record about them, closely resemble those of *Sc. ruficeps.* The eggs measure ·82 by ·61.

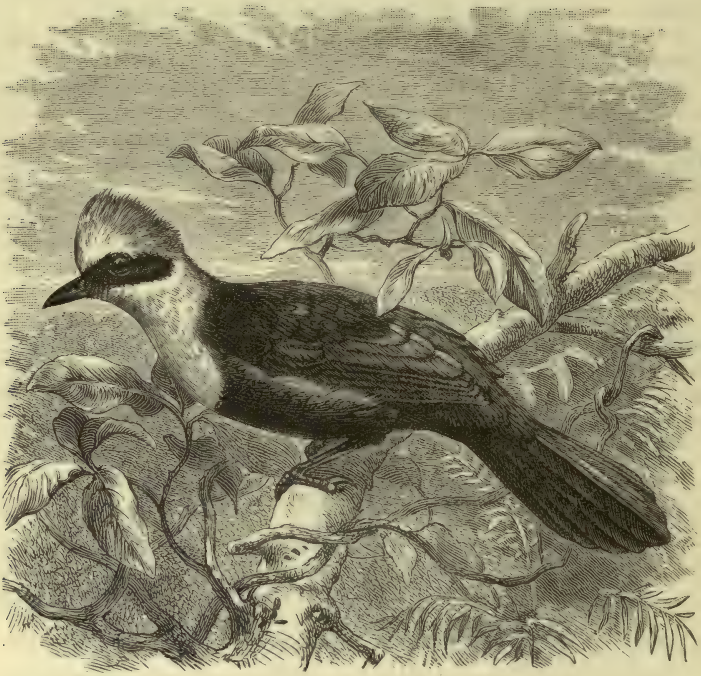

Fig. 24.—*Garrulax leucolophus.*

## Family CRATEROPODIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles smooth or the upper one with a notch; hinder aspect of tarsus smooth, bilaminated; wing with ten primaries; tongue non-tubular; nostrils clear of the line of the forehead, the lower edge of the nostril nearer to the commissure than the upper edge is to the culmen; plumage of the nestling like that of the adult female, but paler; nostrils never entirely concealed from view although frequently covered by hairs or bristles; rictal bristles present; rectrices twelve; the inner and hind toes equal.

The *Crateropodidæ* form an enormous family of tropical and subtropical species which I find it convenient to divide into six subfamilies or natural groups.

Sexes alike; gregarious; extremely noisy; legs and feet large; wing short and rounded; habits partly terrestrial, partly arboreal; colour of egg, with few exceptions, unspotted white or blue ................ *Crateropodinæ*, [p. 71.

Sexes alike; solitary or occurring in very small troops; not noisy; legs and feet strong; wing short and rounded; habits, skulking in bushes or on the ground, evading observation; colour of egg, with few exceptions, spotted ............................ *Timeliinæ*, p. 129.

Sexes usually dissimilar; solitary; tarsus usually very long and smooth; wing usually rounded and short; habits strictly terrestrial; colour of egg usually spotted ................ *Brachypteryginæ*, [p. 177.

Sexes alike; solitary or occurring in small troops; not noisy; habits entirely arboreal, never descending to the ground; colour of egg, with few exceptions, spotted ...... *Sibiinæ*, p. 194.

Sexes invariably dissimilar; solitary or occurring in small troops; colours brilliant; habits entirely arboreal; colour of egg usually spotted ...................... *Liotrichinæ*, p. 220.

Sexes alike; solitary or occurring in small troops; habits entirely arboreal; tarsi very short, never exceeding in length the middle toe or claw; wing rounded and moderately long; nape usually furnished with some hairs; colour of egg, so far as is known, spotted ...................... *Brachypodinæ*, [p 252.

## Subfamily CRATEROPODINÆ.

The first subfamily of the *Crateropodidæ* comprises a number of birds, which form a natural group, without, however, possessing structural characters of marked importance.

The *Crateropodinæ* agree in being gregarious, extremely noisy, cautious but inquisitive and frequently bold. No birds can hide themselves better, but on the whole they do not shun observation as the *Timeliinæ* do.

The chief feature of this group, however, is the colour of their eggs. With few exceptions the eggs are either blue or white, perfectly unspotted. The few exceptions occur in the genus *Trochalopterum* and one or two others. These birds will ultimately find a place among the *Timeliinæ* and *Sibiinæ*; but until the colour of the eggs of all the species is known and their habits better understood, an accurate arrangement of these birds is not possible.

The *Crateropodinæ* all feed on the ground like Thrushes. They pass a good deal of their time on trees, but they probably derive no portion of their food directly from trees, the fruit they occasionally eat being picked off the ground as they forage for insects.

The head in all the *Crateropodinæ* is crested or subcrested. Their tarsi, toes and claws are remarkably strong and their wings are very rounded and weak. They are all non-migratory.

The sexes are invariably alike, and the young resemble the adults very closely.

The subfamily is represented in India by 10 genera and 72 species.

*Key to the Genera.*

*a*. Bill shorter than head, stout and not strikingly curved.
  *a'*. Covering membrane of nostril bare; frontal feathers with shafts or webs lengthened.
    *a''*. Nostrils nearly hidden by a profusion of bristles and hairs springing from forehead ........................ DRYONASTES, p. 72.
    *b''*. Nostrils clearly visible, but overhung by numerous bristles .................. GARRULAX, p. 77.
    *c''*. Nostrils not overhung by bristles, but merely by a few long and fine hairs.
      *a'''*. Bill slender; length from forehead to tip more than twice the depth at forehead.
        *a*⁴. Tail markedly longer than wing.... IANTHOCINCLA, p. 84.
        *b*⁴. Tail and wing equal in length...... STACTOCICHLA, [p. 104.
      *b'''*. Bill stout; length from forehead to tip much less than twice depth at forehead ........................ GRAMMATOPTILA, [p. 102.
    *d''*. Nostrils perfectly free and exposed, not overhung by either bristles or hairs.... TROCHALOPTERUM, [p. 87.
  *b'*. Posterior half of covering membrane of nostril clothed with plumelets continued back to the forehead, the feathers of which are short and rounded.
    *e''*. Tail very much longer than wing ...... ARGYA, p. 105.
    *f''*. Tail and wing of about equal length .... CRATEROPUS, p. 110.
*b*. Bill as long as head or much longer; slender and much curved.
  *c'*. Bill from one to one-and-a-half times length of head ............................ POMATORHINUS, [p. 115.
  *d'*. Bill three times length of head .......... XIPHORHAMPHUS, [p. 128.

## Genus **DRYONASTES**, Sharpe, 1883.

The genus *Dryonastes*, of which *D. ruficollis* is the type, contains those Laughing-Thrushes which have the nostrils almost completely hidden by bristles. They are very closely allied to some of the *Corvidæ* in structure and they might almost be placed in the same family. They differ, however, in laying spotless eggs and in their habits.

The habits of all the birds of this and the following five genera are so similar that they may be disposed of now once for all. All are without exception gregarious, and are found in troops of from six to twenty or more individuals. They feed principally on the ground, their strong feet and bills enabling them to turn over leaves, and they are also found on trees, on which they take refuge when disturbed. On being alarmed, or frequently without any apparent cause, they break out into a chorus of notes resembling laughter or loud chatter. They are also in the habit of going through various amusing performances on the ground, erecting their crests, drooping their wings, and expanding their tails, dancing and capering about all the time. They are all found in forest or amongst trees and bushes, and although cautious and sometimes very shy, yet on some occasions they seem careless of observation, and they are difficult to get rid of when once their curiosity has been excited.

They eat almost every sort of insect and the smaller reptiles, and they no doubt partake also of fruit. They construct large cup-shaped nests in trees and lay eggs which, with the exception of those of some species of *Trochalopterum*, are spotless white or blue. In *Dryonastes* the eggs, so far as is known, are pale blue.

*Key to the Species.*

| | |
|---|---|
| *a*. Chin and throat black | |
| *a'*. Ear-coverts black | *D. ruficollis*, p. 73. |
| *b'*. Ear-coverts white. | |
| *a''*. Back chestnut | *D. nuchalis*, p. 74. |
| *b''*. Back olive-brown | *D. chinensis*, p. 74. |
| *b*. Chin and throat white. | |
| *c'*. Tail plain | *D. cærulatus*, p. 75. |
| *d'*. Tail tipped with white | *D. subcærulatus*, p. 76. |
| *c*. Chin and throat chestnut-brown | *D. sannio*, p. 76. |
| *d*. Chin black, throat yellow | *D. galbanus*, p. 76. |

### 62. **Dryonastes ruficollis.** *The Rufous-necked Laughing-Thrush.*

Ianthocincla ruficollis, *Jard. & Selby, Ill. Orn.* 2nd ser. pl. 21 (1838).

Garrulax ruficollis (*J. & S.*), *Blyth, Cat.* p. 97; *Horsf. & M. Cat.* i, p. 205; *Jerd. B. I.* ii, p. 38; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 269; *Hume, N. & E.* p. 254; *Inglis, S. F.* v, p. 34; *Hume, Cat.* no. 410; *id. S. F.* xi, p. 158.

Dryonastes ruficollis (*J. & S.*), *Sharpe, Cat. B. M.* vii, p. 454; *Oates in Hume's N. & E.* 2nd ed. i, p. 45.

*Pobduya*, Beng.; *Rapchen-pho*, Lepch.; *Doopooleeka*, Assam.

*Coloration.* Lores, sides of the head, cheeks, chin, throat, and centre of the uppermost portion of the breast black; sides of neck bright chestnut, continued upwards to the middle of the upper edge of the ear-coverts; crown and nape slaty-grey; upper plumage and wings olive-brown, the outer webs of the primaries ashy; tail black, the base suffused with olive-green; breast, upper abdomen, sides of the body, and thighs olive-brown; centre of lower abdomen and under tail-coverts bright chestnut.

Bill, legs, and feet black; iris red (*Hume*).

Length about 10; tail 4·5; wing 4; tarsus 1·4; bill from gape 1.

*Distribution.* The Himalayas from Nepal to Sadiya; the Khási hills; Sylhet, Cachar, Manipur, Tipperah; Bhamo. This bird is found at low elevations probably not above 4000 feet and mostly at the foot of the hills.

*Habits, &c.* This species appears to be addicted to grass- and reed-jungle. It breeds in Sikhim from April to June, constructing its nest in bushes within a few feet of the ground. The eggs, three or four in number, are pale bluish green and measure 1·02 by ·75.

### 63. **Dryonastes nuchalis.** *Ogle's Laughing-Thrush.*

Garrulax nuchalis, *Godwin-Austen, A. M. N. H.* (4) xviii, p. 411 (1876); *Hume, S. F.* v, p. 58; *id. Cat.* no. 408 quat.; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 17, pl. x; *Hume, S. F.* xi, p. 154.

Dryonastes nuchalis (*Godw.-Aust.*), *Sharpe, Cat. B. M.* vii, p. 456.

*Coloration.* Forehead, the upper portion of the cheeks, and the feathers round the eye black; crown and nape slaty-grey; a few pointed white feathers in front of the crown; hind neck and upper back chestnut; upper plumage olive-brown, the outer webs of the quills tinged with grey; tail olive-brown, with the ends broadly black; lower part of cheeks, ear-coverts, and sides of neck white; chin and throat black; breast light ashy; remainder of lower plumage olive-brown.

Iris dark red; legs and feet fleshy-grey (*Chennell*).

Bill black; legs and feet ivory-white; iris brick-red (*Cripps*).

Length about 10; tail 4·4; wing 4·3; tarsus 1·5; bill from gape 1·35.

*Distribution.* The Dibrugarh district of Assam; the Lhota-Naga hills; Kamlangpáni; probably Manipur.

### 64. **Dryonastes chinensis.** *The Black-throated Laughing-Thrush.*

Lanius chinensis, *Scop. Del. Fl. et Faun. Insubr.* ii, p. 86 (1786).

Garrulax chinensis (*Scop.*), *Blyth, Cat.* p. 95; *Horsf. & M. Cat.* i, p. 202; *Walden, P. Z. S.* 1866, p. 549; *Blyth, Birds Burm.* p. 107; *Hume & Dav. S. F.* vi, p. 289; *Hume, Cat.* no. 408 ter; *Bingham, S. F.* ix, p. 181; *Oates, S. F.* x, p. 208; *id. B. B.* i, p. 38.

Dryonastes chinensis (*Scop.*), *Sharpe, Cat. B. M.* vii, p. 455.

*Coloration.* Forehead, lores, round the eye, a line over the ear-coverts, the upper part of the cheeks, chin, throat, and the central portion of the upper breast black; cheeks and ear-coverts white;

crown and nape slaty-blue, anterior part of crown streaked with white; upper plumage and exposed part of wings rich olive-brown, except the outer webs of the first few primaries, which are silvery-grey; tail olive-brown with the last quarter black; breast, sides of neck, and upper portion of abdomen ashy grey; remainder of lower surface olive-brown.

Iris red; bill black; mouth and eyelids plumbeous; legs fleshy brown; claws horn-colour.

Length about 11·5; tail 4·7; wing 4·5; tarsus 1·6; bill from gape 1·2.

*Distribution.* Tenasserim from Toungngoo down to Meetan and the Thoungyeen valley; the southern half of Pegu. The range extends into China.

### 65. **Dryonastes cærulatus.** *The Grey-sided Laughing-Thrush.*

Cinclosoma cærulatus, *Hodgs. As. Res.* xix, p. 147 (1836).
Garrulax cærulatus (*Hodgs.*), *Blyth, Cat.* p. 96; *Horsf. & M. Cat.* i, p. 205; *Jerd. B. I.* ii, p. 36; *id. Ibis*, 1872, p. 302; *Godw.-Aust. J. A S. B.* xliii, pt. ii, p. 160; *Hume, N. & E.* p. 254; *id. Cat.* no. 408.
Dryonastes cærulatus (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 461; *Oates in Hume's N. & E.* 2nd ed. i, p. 46.

*Tarmol-pho*, Lepch.; *Piang-kam*, Bhut.

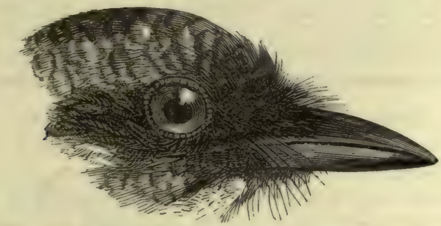

Fig. 25.—Head of *D. cærulatus.*

*Coloration.* Forehead, the upper part of the cheeks, and round the eye black; ear-coverts black above, whitish tipped with rufous below; upper plumage and sides of neck rufous-brown, brighter on the greater coverts, the outer webs of the quills, and on the head, the feathers of which are terminally margined very narrowly with black; rump tinged with ashy; tail chestnut-brown; lower part of cheeks rufous-brown; extreme point of chin black; remainder of chin, throat, the middle of the breast, and abdomen and the under tail-coverts white; sides of breast and abdomen ashy.

Bill dusky, livid at the base; legs fleshy-white; iris red-brown; orbital skin livid (*Jerdon*).

Length about 11; tail 4·8; wing 4·2; tarsus 1·4; bill from gape 1·2.

*Distribution.* Nepal and Sikhim. Godwin-Austen procured this species in the hills of Northern Manipur. His specimens are all typical *D. cærulatus*, and not the next species.

*Habits, &c.* Breeds in Sikhim in May and June, constructing its nest in trees at from six to twelve feet from the ground, and laying two or three eggs, which are greenish-blue and measure 1·18 by ·82.

66. **Dryonastes subcærulatus.** *The Shillong Laughing-Thrush.*

Garrulax subcærulatus, *Hume, S. F.* vii, p. 140 (1878); *id. Cat.* no. 408 A.
Dryonastes subcærulatus (*Hume*), *Sharpe, Cat. B. M.* vii, p. 462.

*Coloration.* Resembles *D. cærulatus.* Differs in having the ear-coverts, lower part of cheeks, and feathers above the ear-coverts white, slightly tipped with black here and there; the three exterior pairs of tail-feathers broadly tipped with white, and the whole upper plumage of a paler rufous. Some of the feathers of the nape are sometimes white in the middle.

Nude space round the eye dark grey (*Godwin-Austen*).

Length nearly 11; tail 4·8; wing 4·2; tarsus 1·4; bill from gape 1·2.

*Distribution.* Shillong in the Khási hills.

67. **Dryonastes sannio.** *The White-browed Laughing-Thrush.*

Garrulax sannio, *Swinhoe, Ibis,* 1867, p. 403; *id. P. Z. S.* 1871, p. 371; *Anders. Yunnan Exped., Aves,* p. 627; *Hume, Cat.* no. 409 quint.; *id. S. F.* xi, p. 157.
Garrulax albosuperciliaris, *Godwin-Austen, P. Z. S.* 1874, p. 45; *id. J. A. S. B.* xliii, pt. ii, p. 161, pl. vi; *id. A. M. N. H.* (4) xvii, p. 34; *Hume, S. F.* iii, p. 393, iv. p. 502.
Dryonastes sannio (*Swinh.*), *Sharpe, Cat. B. M.* vii, p. 459.

*Coloration.* Lores, cheeks, lower part of the ear-coverts, and a supercilium to the nape yellowish white; remainder of the ear-coverts, forehead, crown, nape, sides of the neck, chin, and throat chestnut-brown; upper plumage and exposed parts of wings olive-brown; tail rufous-brown; centre of breast and abdomen pale ochraceous; sides of breast and abdomen rufous olive-brown; under tail-coverts bright ochraceous.

Legs and feet pale brown with a faint purplish-fleshy tinge; claws darker; bill blackish; orbital skin pale fleshy-grey; iris dull brownish maroon, liver-brown, light brown (*Hume*).

Length about 10; tail 4; wing 3·8; tarsus 1·4; bill from gape 1.

*Distribution.* Manipur above 4500 feet; the Muangla Sanda valley, east of Bhamo; extending into China.

68. **Dryonastes galbanus.** *Austen's Laughing-Thrush.*

Garrulax galbanus, *Godwin-Austen, P. Z. S.* 1874, p. 44, pl. 10; *id. J. A. S. B.* xliii, pt. ii, p. 161; *Hume, S. F.* iii, p. 394; *id. Cat.* no. 409 quat.; *Sharpe, Cat. B. M.* vii, p. 445; *Hume, S. F.* xi, p. 155.

*Coloration.* Forehead, lores, upper part of the cheeks, round the eye, ear-coverts, and chin black; crown and nape ashy brown, separated from the black of the forehead by a narrow ashy-white line; upper plumage, wing-coverts, and the outer webs of the secondaries and tertiaries ochraceous brown; the outer webs of primaries ashy olive; inner webs of all the quills brown; tail greenish ashy, the four middle feathers broadly terminated with black and slightly tipped with whitish, the others broadly tipped with white preceded by a black portion; lower plumage yellow, washed with olive on the sides; under tail-coverts white.

Bill black; legs ash-grey; iris red-brown (*Godwin-Austen*).

Length about 9·5; tail 4·2; wing 3·7; tarsus 1·4; bill from gape 1·1.

*Distribution.* The hills of Manipur up to 4000 feet.

## Genus **GARRULAX**, Lesson, 1831.

The genus *Garrulax* differs from *Dryonastes* in having fewer bristles and hairs covering the nostrils, the number being so reduced that the nostrils are clearly visible. The species of *Garrulax* are on the whole much larger birds, and some of them have very ample crests.

The colour of the egg is known in five Indian species of *Garrulax* out of a total of nine. Of these five, three lay blue eggs and two white. I cannot, however, discover any external structural character by which those laying blue eggs may be separated from those laying white ones. Some better distribution of the birds may become possible when the eggs of the remaining four species are known.

### *Key to the Species.*

| | |
|---|---|
| *a*. Crown and crest white. | |
| *a′*. Breast white, distinctly defined from the rufous of the abdomen ............... | *G. leucolophus*, p. 77. |
| *b′*. Breast white, blending with the rufous of the abdomen ...................... | *G. belangeri*, p. 79. |
| *c′*. Breast and entire abdomen white ...... | *G. diardi*, p. 79. |
| *b*. No white in the crown and crest. | |
| *d′*. A black pectoral band. | |
| *a″*. A black cheek-stripe .............. | *G. pectoralis*, p. 80. |
| *b″*. No black cheek-stripe .............. | *G. moniliger*, p. 81. |
| *e′*. No pectoral band. | |
| *c″*. Chin and throat yellow ............ | *G. gularis*, p. 81. |
| *d″*. Chin and throat white. | |
| *a‴*. Tail entirely black ............... | *G. delesserti*, p. 82. |
| *b‴*. Tail tipped with white .......... | *G. albigularis*, p. 82. |
| *e″*. Chin and throat chocolate-brown .... | *G. strepitans*, p. 83. |

### 69. **Garrulax leucolophus.** *The Himalayan White-crested Laughing-Thrush.*

Corvus leucolophus, *Hardw. Trans. Linn. Soc.* xi, p. 208, pl. 15 (1815).
Garrulus leucolophus (*Hardw.*), *Gould, Cent.* pl. 18.

Garrulax leucolophus (*Hardw.*), *Blyth, Cat.* p. 95; *Horsf. & M. Cat.* i, p. 201; *Jerd. B. I.* ii, p. 35; *Hume, N. & E.* p. 253; *Blyth, Birds Burm.* p. 107; *Hume, Cat.* no. 407; *Scully, S. F.* viii, p. 289; *Oates, B. B.* i, p. 34; *Sharpe, Cat. B. M.* vii, p. 435; *Hume, S. F.* xi, p. 153; *Oates in Hume's N. & E.* 2nd ed. i, p. 47.

*The White-crested Laughing-Thrush*, Jerd.; *Rawil-Kahy*, Hind. in N. W. P.; *Karrio-pho*, Lepch.; *Karria-goka*, Bhut.; *Naga-dhoopooleka* Assam.

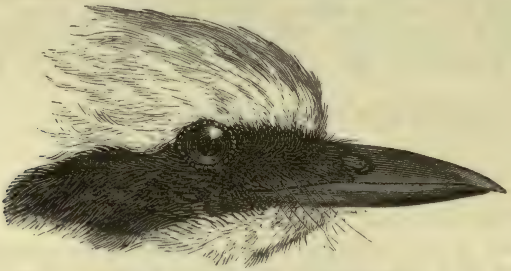

Fig. 26.—Head of *G. leucolophus*.

*Coloration.* Lores, ear-coverts, and round the eye black; the whole head and crest, sides of the neck, cheeks, chin, throat, and breast pure white, the hindmost feathers of the crest dark ashy, forming a small collar on the nape; the white of the head and breast abruptly defined all round by a ferruginous collar which gradually merges posteriorly into the olive-brown of the remaining upper and lower plumage; wings brown, with the outer webs of the colour of the back; tail brown, washed with olive-brown; the lower plumage with a decided tinge of rufous throughout.

Bill horny-black; iris red-brown; orbital skin slaty; feet livid plumbeous; claws dusky grey (*Scully*).

Length about 11; tail 5·2; wing 5·3; tarsus 1·8; bill from gape 1·4.

This species, which does not vary at all, may be distinguished from the next two by the abrupt definition of the white of the breast and by the olive-brown upper plumage.

*Distribution.* The Himalayas from Gurwhal to the extreme east of Assam; thence down through the hill-tracts of Eastern Bengal to Bhamo on the one hand and to Arrakan on the other. A specimen procured by Blanford at Bassein proves to belong to this species. It is found from the plains to an elevation of about 6000 feet.

*Habits, &c.* This species and indeed all of the genus have remarkably loud cries and they are, if anything, rather more gregarious than the Laughing-Thrushes of the other genera. The present species breeds from April to June, constructing its nest in shrubs and bushes within reach of the hand, and laying from two to five eggs, which are pure white and measure 1·1 by ·9.

### 70. **Garrulax belangeri.** *The Burmese White-crested Laughing-Thrush.*

Garrulax belangeri, *Less. Tr. d'Orn.* p. 648 (1831); *id. in Bélang. Voy. Indes. Or.* p. 258, pl. 4; *Blyth, Cat.* p. 95; *Horsf. & M. Cat.* i, p. 201; *Wald. P. Z. S.* 1866, p. 548; *Blyth, Birds Burm.* p. 107; *Hume, S. F.* iii, p. 122; *Oates, S. F.* v, p. 156; *Hume & Dav. S. F.* vi, p. 286; *Hume, Cat.* no. 407 bis; *Bingham, S. F.* ix, p. 181; *Oates, S. F.* x, p. 208; *id. B. B.* i, p. 33; *Sharpe, Cat. B. M.* vii, p. 436; *Oates in Hume's N. & E.* 2nd ed. i, p. 48.

*Wa-youn-hnet,* Burm.

*Coloration.* Lores, ear-coverts, and round the eye black; the whole head and crest, sides of neck, chin, throat, breast, and upper abdomen, continued narrowly down the middle of the latter, white; hinder part of crest deep ashy; upper plumage bright ferruginous; lower plumage the same, becoming duller on the thighs, vent, and under tail-coverts; wings brown, edged on the outer webs with rufous-brown; tail dark brown, washed with rufous-brown on the outer webs.

Bill black; gape yellow; mouth flesh-colour; iris pinkish hazel; legs plumbeous; claws pale horn-colour; eyelids purplish grey.

Length about 11·5; tail 4·8; wing 5; tarsus 1·7; bill from gape 1·4.

This species may be distinguished from the last by the white of the breast running into the abdomen and by the upper and lower plumage, except the white portions, being of a bright ferruginous. From the next it may be known by the ashy portion of the crest abruptly meeting the ferruginous of the upper plumage, and by the white of the lower parts extending only over a small portion of the abdomen.

*Distribution.* The whole of Pegu in the better-wooded parts; Tenasserim from Toungngoo down to Tavoy and the Thoungyeen valley.

*Habits.* Breeds from March to July precisely in the same manner as the last species. The eggs, however, are almost invariably three in number, and measure 1·13 by ·88; they are pure white.

### 71. **Garrulax diardi.** *The Siamese White-crested Laughing-Thrush.*

Turdus diardi, *Less. Tr. d'Orn.* p. 408 (1831).
Garrulax leucogaster, *Wald. P. Z. S.* 1866, p. 549; *id. Ibis,* 1867, p. 381.
Garrulax diardi (*Less.*), *Hume, S. F.* ix, p. 292; *Oates, B. B.* i, p. 34; *Sharpe, Cat. B. M.* vii, p. 437.

*Coloration.* Lores, ear-coverts, and round the eye black; the whole head and crest, cheeks, chin, throat, breast, and the whole abdomen white, the hinder part of the crest pale ashy, spreading over the whole hind neck and encroaching on to the sides also; entire upper plumage bright ferruginous; sides of the body, thighs, and under tail-coverts rufous olive-brown; wings brown, with the outer webs rufous-brown; tail dark brown washed with olive.

In the dry skin the bill is black and the legs plumbeous.

Length about 11; tail 5; wing 5·5; tarsus 1·6; bill from gape 1·3.

This species may be readily separated from the two preceding by the ashy hind neck and by the entirely white abdomen.

*Distribution.* The only specimens procured within my limits are two which were obtained by Captain Hill's Survey party on the hills of Tenasserim, apparently between Tavoy and the Siamese frontier. They passed, through Mandelli, into the Hume Collection and are now in the British Museum. There are other specimens from Siam, Cambodia, and Saigon in the same collection and all of them are alike in plumage.

72. **Garrulax pectoralis.** *The Black-gorgeted Laughing-Thrush.*

Ianthocincla pectoralis, *Gould, P. Z. S.* 1835, p. 186.
Cinclosoma grisaure, *Hodgs. As. Res.* xix, p. 146 (1836).
Garrulax melanotis, *Blyth, J. A. S. B.* xii, p. 949 (1843).
Garrulax pectoralis (*Gould*), *Blyth, Cat.* p. 95; *Horsf. & M. Cat.* i, p. 204; *Jerd. B. I.* ii, p. 39; *Hume, N. & E.* p. 256; *Hume, S. F.* iii, p. 122; *Wardlaw Ramsay, Ibis,* 1877, p. 463; *Hume & Dav. S. F.* vi, p. 291; *Hume, Cat.* no. 412; *id. S. F.* viii, p. 109; *Bingham, S. F.* ix, p. 181; *Oates, S. F.* x, p. 208; *id. B. B.* i, p. 36; *Sharpe, Cat. B. M.* vii, p. 441; *Hume, S. F.* xi, p. 159; *Oates in Hume's N. & E.* 2nd ed. i, p. 49.
Garrulax uropygialis, *Cab. in Ersch & Gruber, Allg. Encycl.* Band 55, p. 62 (1852); *Jerd. B. I.* ii, p. 40.

*Ol-pho*, Lepch.

*Coloration.* Forehead, crown, nape, back, wing-coverts, rump, and upper tail-coverts olive-brown, with a fulvous tinge throughout; a broad collar on the hind neck bright fulvous; middle tail-feathers like the back, the next two similar but with some black near the tip; the remaining four pairs olive-brown at base, then black and broadly tipped with white; primary-coverts black, edged with hoary; exposed parts of quills olive-brown, the earlier primaries more or less hoary; lores and a narrow supercilium white; ear-coverts white, streaked with black, sometimes entirely black; a cheek-stripe from the gape continued round the ear-coverts to the upper part of the eye, and a broad pectoral band, black; chin and throat whitish; remainder of lower surface fulvous, the middle of the abdomen whitish.

Upper mandible dark horn-colour; the lower bluish-horn at the base and tip, dark brown in the middle; mouth bluish; iris orange-brown; eyelids and orbital skin dusky blue; edges of the eyelids orange-yellow; legs light plumbeous; claws pale horn.

Length about 13; tail 5·1; wing 5·7; tarsus 1·9; bill from gape 1·5.

Birds from the Himalayas down to Bassein and further east down to Toungngoo have the tips of the tail-feathers white. At Thayetmyo both buff- and white-tailed birds occur. Throughout Tenasserim none but buff-tailed birds are to be found. The ear-coverts vary in colour and present every combination of black and white. The black cheek-stripe is always a feature in this bird and serves to distinguish it at once from the next species, which it otherwise much resembles.

In Himalayan birds the flanks are chestnut, in those from Tenasserim buff; and in birds from the latter locality the rufous nuchal collar is also less clearly indicated.

*Distribution.* The Himalayas from Nepal to Assam and thence through the hill-tracts south of the Brahmaputra to Burma, where it is found in Arrakan, Pegu, Karennee, and a considerable portion of Tenasserim down to the foot of Muleyit mountain and the Thoungyeen valley. To the east it is replaced by *G. picticollis* and other allied species.

*Habits, &c.* Breeds from April to July, building its nest in small trees or in a bamboo clump not far above the ground. The eggs are pale greenish blue and measure 1·31 by ·98.

### 73. **Garrulax moniliger.** *The Necklaced Laughing-Thrush.*

Cinclosoma moniligera, *Hodgs. As. Res.* xix, p. 147 (1836).
Garrulax macclellandi, *Blyth, J. A. S. B.* xii, p. 949 (1843).
Garrulax moniliger (*Hodgs.*), *Blyth, Cat.* p. 96; *Horsf. & M. Cat.* i, p. 204; *Jerd. B. I.* ii, p. 40; *Hume, N. & E.* p. 257; *id. S. F.* iii, p. 123; *Anders. Yunnan Exped., Aves,* p. 627; *Hume & Dav. S. F.* vi, pp. 291, 515; *Hume, Cat.* no. 413; *Bingham, S. F.* ix, p. 181; *Oates, S. F.* x, p. 208; *id. B. B.* i, p. 35; *Sharpe, Cat. B. M.* vii, p. 442; *Hume, S. F.* xi, p. 160; *Oates in Hume's N. & E.* 2nd ed. i, p. 50.

*Ol-pho,* Lepch.; *Piang-kam,* Bhut.; *Poreri* or *Purirhi,* Daphla.

*Coloration.* Resembles *G. pectoralis.* Differs in wanting the black cheek-stripe and in having the primary-coverts of the same colour as the other wing-coverts. The ear-coverts vary from pure white to black with a white patch in the middle. The former type prevails throughout Burma and the latter in the Himalayas. The tail is tipped with white in all specimens procured north of a line drawn from Thayetmyo to Toungngoo; south of this line the tips are almost invariably buff, and the only exception I have met with is a bird shot at Kollidoo in Tenasserim.

Iris bright yellow; eyelids dull purple; bill dark horn, the tip and margins pale brown; legs light plumbeous; claws pale horn-colour. In young birds the iris appears to be greenish yellow.

Length about 12; tail 4·9; wing 5; tarsus 1·7; bill from gape 1·3.

*Distribution.* Nearly the same as that of *G. pectoralis,* but found in Tenasserim as far south as Tavoy, and apparently absent from Karennee.

*Habits, &c.* Breeds from March to June, constructing a nest in bushes and seedling bamboos within easy reach of the hand, and laying from three to five blue eggs, which measure 1·07 by ·85.

### 74. **Garrulax gularis.** *McClelland's Laughing-Thrush.*

Ianthocincla gularis, *McClell. P. Z. S.* 1839, p. 159.
Garrulax gularis (*McClell.*), *Blyth, Cat.* p. 337; *Horsf. & M. Cat.* i, p. 203; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 269; *Jerd. Ibis,*

1872, p. 303; *Hume, S. F.* iii, p. 412; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 76; *Hume, Cat.* no. 409 ter; *Sharpe, Cat. B. M.* vii, p. 445.

*Coloration.* Lores, ear-coverts, and under the eyes black; forehead, crown, nape, mantle, and sides of neck slaty grey; back, rump, and visible portions of wings deep chestnut-brown, except the outer webs of the first few primaries, which are duller; upper tail-coverts deeper chestnut; the central four tail-feathers rufous-brown on the basal two-thirds of their length, then black; the others all pale chestnut, the fourth pair from the outside partially black on the inner web; extreme point of the chin black; remainder of chin, cheeks, throat, fore neck, centre of breast, and abdomen yellow; sides of breast and upper abdomen dark ashy grey; lower part of flanks, thighs, vent, and under tail-coverts deep chestnut.

Length about 10; tail 3·8; wing 3·8; tarsus 1·5; bill from gape 1·3.

*Distribution.* The Dibrugarh district of Assam; Borpáni in the Dekrang Dhun of the Daphla hills; Lukhipur near Cachar; the Khási hills.

### 75. **Garrulax delesserti.** *The Wynaad Laughing-Thrush.*

Crateropus delesserti, *Jerd. Madr. Journ. L. S.* x, p. 256 (1839); *id. Ill. Ind. Orn.* pl. xiii.
Turdus (Crateropus) griseiceps, *Deless., Rev. Zool.* 1840, p. 101.
Garrulax delesserti (*Jerd.*), *Jerd. B. I.* ii, p. 37; *Hume & Bourd. S. F.* iv, p. 399; *Hume, Cat.* no. 409; *Davidson, S. F.* x, p. 377; *Sharpe, Cat. B. M.* vii, p. 446.

*Coloration.* Lores, ear-coverts, and round the eye black; forehead, crown, mantle, and sides of neck deep slaty grey, the forehead mottled with grey; back, rump, and visible portion of wings chestnut-brown except the outer webs of the first few primaries, which are duller; upper tail-coverts brighter chestnut; tail black, tinged with rufous at the base; extreme point of chin black; remainder of chin, cheeks and throat white; breast and upper part of abdomen ashy grey; lower part of abdomen, vent, thighs, and under tail-coverts deep chestnut.

Iris crimson; lower mandible, legs, feet and claws fleshy-white; upper mandible blackish brown (*Davison*).

Length 10; tail 4; wing 4·1; tarsus 1·5; bill from gape 1·3.

This species is allied to the preceding, but differs in the colour of the tail and lower plumage.

*Distribution.* The hills of Southern India from the Wynaad south to the Asambu hills. This bird appears to be found at all elevations.

### 76. **Garrulax albigularis.** *The White-throated Laughing-Thrush.*

Ianthocincla albogularis, *Gould, P. Z. S.* 1835, p. 187.
Cinclosoma albigula, *Hodgs. As. Res.* xix, p. 146 (1836).
Garrulax albogularis (*Gould*), *Blyth, Cat.* p. 95; *Horsf. & M. Cat.* i, p. 202; *Jerd. B. I.* ii, p. 38; *Stoliczka, J. A. S. B.* xxxvii, pt. ii,

p. 37; *Jerd. Ibis,* 1872, p. 303; *Cock & Marsh. S. F.* i. p. 354; *Hume, N. & E.* p. 255; *Hume, Cat.* no. 411; *Scully, S. F.* viii, p. 289; *Sharpe, Cat. B. M.* vii, p. 439; *Oates in Hume's N. & E.* 2nd ed. i, p. 52.

*Karreum-pho,* Lepch.

*Coloration.* Forehead fulvous; lores and feathers over and beneath the eye black; cheeks, chin, and throat white; upper plumage rich olive-brown, tinged with fulvous on the crown and ear-coverts and with rusty on the upper tail-coverts; wings brown, edged with the colour of the back; tail olive-brown, the four outer pairs of feathers very broadly tipped white; sides of neck and a broad pectoral band olive-brown; remainder of lower plumage bright ferruginous.

Bill dull black; legs, feet, and claws pale livid plumbeous; iris greyish blue; inside of mouth yellow (*Hume*).

Length about 12; tail 5·7; wing 5·3; tarsus 1·7; bill from gape 1·2.

There is great uniformity in the plumage of this bird, the only exception being that specimens from Sikhim and the moister parts of the Himalayas are brighter on the lower parts.

*Distribution.* The Himalayas from the Hazára country to Sikhim at all elevations up to 8000 or 9000 feet. Jerdon states that this bird is found in Bhutan and Hume in Assam, but I have seen no specimen from any locality east of Sikhim. It extends into Western China.

*Habits, &c.* Breeds from April to June, constructing a shallow cup-shaped nest of grass, moss, and leaves in low branches and in bushes at no great height from the ground. The eggs, usually three in number, are greenish blue and measure 1·22 by ·83.

### 77. **Garrulax strepitans.** *Tickell's Laughing-Thrush.*

Garrulax strepitans (*Tickell, MS.*), *Blyth, J. A. S. B.* xxiv, p. 268 (1855); *Blyth, Birds Burm.* p. 107; *Hume & Dav. S. F.* vi, p. 288; *Hume, Cat.* no. 408 bis; *Oates, B. B.* i, p. 37.
Dryonastes strepitans (*Tick.*), *Sharpe, Cat. B. M.* vii, p. 457.

*Coloration.* Lores, cheeks, anterior portion of the ear-coverts, and round the eyes black; hinder part of the ear-coverts ferruginous; forehead, crown, and nape reddish brown; a spot on each side the neck white; hind neck, sides of neck, and upper back ashy, paler and whiter in front, darker behind, and blending with the olive-brown of the upper plumage and wings; tail blackish, washed with olive-brown on the outer webs; point of chin blackish; throat and breast chocolate-brown, the latter bordered by ashy blending with the olive-brown of the remainder of the lower plumage.

Legs and feet very dark brown, sometimes brown-black; claws paler; bill black; iris generally lake-red, sometimes crimson (*Hume & Davison*).

Length nearly 12; tail 5·3; wing 5·3; tarsus 1·8; bill from gape 1·4.

*Distribution.* Confined, so far as is at present known, to Muleyit mountain in Tenasserim, where this species is found at elevations above 3500 feet.

*Habits, &c.* Mr. Davison remarks:—"This species is not by any means uncommon, occurring in small flocks of twenty or more, and keeping entirely, so far as I have observed, to the forest, especially to the ravines where this is densest." He adds that it is very shy and beats a rapid retreat at the approach of anybody. It is a very clamorous bird.

### Genus **IANTHOCINCLA**, Gould, 1835.

I apply the generic term *Ianthocincla* to those Laughing-Thrushes which have no bristles at the base of the forehead, but in which the nostrils are overhung by a few long hairs. This genus differs in no other respect from *Dryonastes* and *Garrulax*, and consequently I do not figure the head. All the species are remarkable in having the secondaries tipped with white.

The eggs of two species only are known. One lays unspotted white eggs, and the other has them of a colour which has not yet been determined satisfactorily. The only two eggs of this latter species which Hume has had the opportunity of examining are described by him as being, one an unspotted pale blue, and the other blue with a few brown spots at the large end. When more eggs of *I. ocellata* are known they will doubtless prove to be unspotted as a rule, the spotted ones being the exception.

*Key to the Species.*

| | |
|---|---|
| *a.* Crown and nape black. | |
| *a′.* Upper plumage spotted with white .... | *I. ocellata*, p. 84. |
| *b′.* Upper plumage plain ................ | *I. cineracea*, p. 85. |
| *c′.* Upper plumage barred with black ...... | *I. rufigularis*, p. 86. |
| *b.* Crown and nape reddish-brown with pale shafts. ............................ | *I. austeni*, p. 87. |

### 78. **Ianthocincla ocellata.** *The White-spotted Laughing-Thrush.*

Cinclosoma ocellatum, *Vigors, P. Z. S.* 1831, p. 55; *Gould, Cent.* pl. 15.
Garrulax ocellatus (*Vig.*), *Blyth, Cat.* p. 96; *Horsf. & M. Cat.* i, p. 205; *Jerd. B. I.* ii, p. 41; *id. Ibis*, 1872, p. 304; *Hume, N. & E.* p. 257; *id. Cat.* no. 414.
Ianthocincla ocellata (*Vig.*), *Sharpe, Cat. B. M.* vii, p. 382; *Oates in Hume's N. & E.* 2nd ed. i, p. 54.

*Lho-karreum-pho*, Lepch.

*Coloration.* Lores, front of face, chin, and a supercilium bright fulvous; forehead, crown, and nape blackish brown; ear-coverts chestnut; upper back and sides of neck fulvous, with broad black subterminal marks on all the feathers, which are also tipped fulvescent; scapulars, wing-coverts, lower back, rump, and upper tail-coverts reddish brown, with white spots preceded by black marks;

quills tipped with white, the earlier primaries black on the outer webs, becoming progressively ashy and then chestnut; middle tail-feathers chestnut tipped white; the others rufous at base, then ashy and finally black with white tips; centre of throat black with narrow rufous edges; sides of the throat rufous, barred with black; breast fulvous buff, broadly barred with black; remainder of lower plumage the same colour as the breast, but not barred; the flanks more olivaceous, with a few paler fulvous bars.

Bill yellowish, dusky on the ridge and tip; legs dull yellow; iris yellow-brown (*Jerdon*).

Length about 13; tail 6·5; wing 5·2; tarsus 1·8; bill from gape 1·5.

*Distribution.* Nepal and Sikhim at elevations from 8000 to 10,000 feet.

*Habits, &c.* Our knowledge of the nidification of this bird is unsatisfactory. A nest and two eggs, taken in Sikhim in May, and sent to Hume, are described, the former as being composed of fern, moss, grass, and roots, and the latter as pale blue, one of the two eggs being spotted with brown at the thicker end. The two eggs measured 1·18 by ·86 and 1·25 by ·85.

### 79. **Ianthocincla cineracea.** *The Ashy Laughing-Thrush.*

Trochalopteron cineraceum, *Godwin-Austen, P. Z. S.* 1874, p. 45, pl. xi; *id. J. A. S. B.* xliii, pt. ii, p. 162; *Hume, S. F.* iii, p. 395; *id. Cat.* no. 418 ter; *Sharpe, Cat. B. M.* vii, p. 366; *Hume, S. F.* xi, p. 165.

*Lehu* of the Angámi Nágas.

*Coloration.* Forehead, crown, and nape, extending to a point on the hind neck, black; lores, a broad supercilium, the ear-coverts, and under the eye dull white; a narrow line over the ear-coverts and a broader moustachial streak black, the latter terminating in streaks on the sides of the upper neck; upper plumage and wing-coverts olivaceous ashy, tinged with rufous on the upper tail-coverts; secondaries, tertiaries, and tail like the back, each feather with a subterminal black band and a white tip; primaries ashy on the outer webs; primary-coverts black; winglet ashy on the outer webs, dusky on the inner; chin and throat pale fulvous, with the shafts black; whole remaining lower plumage fulvous, tinged with olive on the sides and albescent on the abdomen.

Legs and feet pale fleshy pink; basal two-thirds of upper mandible pale brown to dusky; rest of upper and entire lower mandible horny yellow, dirty yellowish horny, or sullied ivory; iris pale orange-yellow, pale orange-buff, very pale yellow or pale buff; edges of lids and bare skin dusky; lids pale lavender (*Hume*).

Length about 9; tail 4; wing 3·3; tarsus 1·3; bill from gape 1.

*Distribution.* The Nága hills and the Eastern hills of Manipur.

*Habits, &c.* Hume describes this bird as being found in pairs, keeping to the densest brushwood and feeding a good deal on the ground, both on fruits and insects. It has a low, rather musical call, or set of calls *.

### 80. **Ianthocincla rufigularis.** *The Rufous-chinned Laughing-Thrush.*

Ianthocincla rufogularis, *Gould, P. Z. S.* 1835, p. 48; *Oates in Hume's N. & E.* 2nd ed. i, p. 54.
Cinclosoma rufimenta, *Hodgs. As. Res.* xix, p. 148 (1836).
Garrulax rufogularis (*Gould*), *Blyth, Cat.* p. 96.
Trochalopteron rufogulare (*Gould*), *Horsf. & M. Cat.* i, p. 210; *Jerd. B. I.* ii, p. 47; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 104; *Jerd. Ibis*, 1872, p. 306; *Hume, N. & E.* p. 261; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 76; *Hume, S. F.* vii, p. 155; *id. Cat.* no. 421; *Sharpe, Cat. B. M.* vii, p. 365; *Hume, S. F.* xi, p. 168.

*Narbigivan-pho*, Lepch.

*Coloration.* A large patch on the lores pale fulvous or whitish; a large ring of grey round the eye; ear-coverts bright rufous; forehead and crown black; the cheeks and a large patch under the eye and ear-coverts mingled black and white, produced narrowly to the back of the ear-coverts; a broad supercilium reaching to the nape, the sides of the neck, and the whole upper plumage olive-brown, tinged with fulvous, each feather of the hind neck, back, and upper rump tipped with a lunate black bar; wing-coverts olive-brown, the larger series broadly tipped with black; primary-coverts dark brown, margined with black; winglet ashy, tipped black; the earlier primaries with the outer webs hoary, the others each with a black patch, which increases progressively in extent up to the last, the basal portions at the same time turning olivaceous; secondaries with the outer webs olive-brown, broadly tipped with black, succeeded by a narrow white line; tertiaries entirely olive-brown and tipped black and white; tail rufescent, with a subterminal black band and deep rufous tips; chin and upper throat bright rufous like the ear-coverts; lower throat white; under tail-coverts deep chestnut; remaining lower plumage ashy-brown, albescent on the abdomen, each feather of the breast, upper abdomen, and sides of the body spotted with black.

Bill horny yellow; legs fleshy brown; orbital skin blue (*Jerdon*).

Length about 9; tail 4; wing 3·6; tarsus 1·3; bill from gape 1·1.

The young have the crown olive-brown tipped black, the chin and upper throat white, and the black bars on the upper plumage smaller in size. The plumage of the adult is rapidly assumed.

This species varies much in certain points of its coloration, and the above description applies to birds found between Almora and Murree. Nepal, Sikhim, and Bhutan birds have merely the point of the chin rufous; the ear-coverts are black, generally entirely black, occasionally with a rufous tinge posteriorly, and the loral patch is white.

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* *I. cinereiceps*, Styan, is said to occur in Yunnan, and, consequently, is likely to be found in Burma. It differs from *I. cineracea* chiefly in having the crown dark ashy instead of black and the ear-coverts rufous instead of white.

Assamese birds (Shillong) have the loral patch, the greater part of the ear-coverts, the chin, and the whole throat rufous.

The reader is referred for further information on this point to Hume's remarks on the subject (*loc. cit.*).

*Distribution.* The Himalayas from the Hazára country to Assam as far as the Daphla hills; the Khási and Garo hills. In the N.W. this bird appears to extend also to the vale of Kashmir. It is found chiefly from 5000 to 8000 feet of elevation.

*Habits, &c.* Breeds from May to July and probably earlier, constructing a nest of creeper-tendrils lined with black roots in low branches of trees, and laying three pure white eggs which measure 1·06 by ·77.

### 81. **Ianthocincla austeni.** *The Cachar Laughing-Thrush.*

Trochalopteron austeni, *Jerd., Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 105 (1870); xliii, pt. ii, p. 180; *Jerd. Ibis,* 1872, p. 304; *Hume, S. F.* iii, p. 414; *id. Cat.* no. 417 bis; *Sharpe, Cat. B. M.* vii, p. 369; *Hume, S. F.* xi, p. 165.

*Coloration.* Forehead, crown, nape, hind neck, sides of the neck, and the whole back reddish brown, with pale shafts; rump paler, without pale shafts; upper tail-coverts and the middle pair of tail-feathers rufous; remainder of the tail black, tipped with white, the basal portions of the outer webs suffused with rufous; wing-coverts and tertiaries reddish-brown, the longer coverts and the tertiaries tipped with white and with a subterminal dusky mark; outer webs of the earlier primaries grey, those of the other quills reddish brown; lores dusky; ear-coverts dark rufous-brown, with pale shafts; chin, throat, and breast rufous-brown, indistinctly barred with dusky and whitish; remainder of lower plumage rufous-brown, with broad and distinct white bars preceded by a dusky line; under tail-coverts narrowly tipped with white.

In the dry skin the bill is black and the legs brown.

Length about 10; tail 4·8; wing 4; tarsus 1·45; bill from gape 1·05.

*Distribution.* A very rare bird, which has hitherto been obtained only by Godwin-Austen in the hill-ranges of Assam. He obtained it on the first occasion on Hengdan Peak, Khási hills, at the head of the Jhiri river at 7000 feet; on the second occasion on the Kopamedza peak, Nága hills, at the same altitude. Hume is pretty certain that he caught a glimpse of it in Manipur above Aimole.

*Habits, &c.* Godwin-Austen observes that these birds were generally in pairs, uttering a harsh, croaking call and answering each other from time to time.

## Genus **TROCHALOPTERUM,** Hodgs., 1843.

The genus *Trochalopterum* merely differs from the three preceding genera in having the base of the bill quite free from all bristles and hairs, the nostrils and their membrane being free and exposed.

The wing is not more rounded nor is it shorter than in those genera, when compared with other parts of the body.

This large genus comprises nineteen Indian birds, which resemble the other Laughing-Thrushes in having loud and discordant notes, but they are less gregarious and sociable. The smaller species are hardly separable from *Timelia* in structure and general pattern of colour. Of the nineteen species, the mode of nidification and the colour of the egg of ten are known with more or less certainty. Of these ten, seven lay spotted eggs and three unspotted. The former will probably hereafter have to be transferred to the next subfamily, but until we know the colour of the egg of the remaining species any attempt to split up this genus into two or more sections will be premature.

The majority of the Laughing-Thrushes of this genus have a bright pattern on the wing, but this character is not of much use apparently as a guide in tracing the affinities of the species with other genera.

*Key to the Species.*

| | |
|---|---|
| *a*. Crown, or nape, or both, chestnut. | |
| *a'*. Back with large dark spots. | |
| *a''*. Sides of head chestnut. | |
| *a'''*. Throat dark brown or blackish. | *T. erythrocephalum*, p. 89. |
| *b'''*. Throat chestnut .............. | *T. erythrolæma*, p. 90. |
| *b''*. Sides of head ashy, ear-coverts pale rufous ........................ | *T. chrysopterum*, p. 90. |
| *c''*. Sides of head black and ashy; ear-coverts black with white margins. | *T. nigrimentum*, p. 91. |
| *b'*. Back plain, without spots .......... | *T. melanostigma*, p. 92. |
| *b*. No chestnut either on crown or nape. | |
| *c'*. Wings brightly coloured. | |
| *d''*. Wings chiefly crimson .......... | *T. phœniceum*, p. 93. |
| *e''*. Wings chiefly bright yellow. | |
| *c'''*. Primary-coverts brown ........ | *T. subunicolor*, p. 94. |
| *d'''*. Primary-coverts deep black. | |
| $a^4$. Tail without white tips ...... | *T. affine*, p. 94. |
| $b^4$. Tail tipped with white........ | *T. variegatum*, p. 95. |
| *f''*. Wings chiefly slaty blue, with a black patch on the secondaries .... | *T. simile*, p. 96. |
| *g''*. Earlier primaries chiefly bright blue, the others black ................ | *T. squamatum*, p. 96. |
| *d'*. Wings of a dull colour. | |
| *h''*. Upper plumage unmarked. | |
| *e'''*. Breast rufous. | |
| $c^4$. Lores and chin deep black .... | *T. cachinnans*, p. 97. |
| $d^4$. Lores and chin rufous-brown.. | *T. cinnamomeum*, p. 98. |
| *f'''*. Breast whitish, streaked with ashy. | |
| $e^4$. Chin black.................... | *T. jerdoni*, p. 99. |
| $f^4$. Chin grey. | |
| $a^5$. With a conspicuous white supercilium extending to nape ..................... | *T. fairbanki*, p. 99. |
| $b^5$. With a short supercilium not passing behind the eye .... | *T. meridionale*, p. 100. |

i''. Upper plumage striped.
  g'''. With a white supercilium ...... *T. virgatum*, p. 100.
  h'''. With no white supercilium.
    $g^4$. Head and mantle ashy with dusky streaks .............. *T. lineatum*, p. 101.
    $h^4$. Head and mantle reddish brown with glistening black shafts .. *T. imbricatum*, p. 102.

### 82. **Trochalopterum erythrocephalum.** *The Red-headed Laughing-Thrush.*

Cinclosoma erythrocephalum, *Vigors, P. Z. S.* 1831, p. 171; *Gould, Cent.* pl. 17.
Garrulax erythrocephalus (*Vig.*), *Blyth, Cat.* p. 97.
Pterocyclus erythrocephalus (*Vig.*), *Horsf. & M. Cat.* i, p. 206.
Trochalopteron erythrocephalum (*Vig.*), *Jerd. B. I.* ii, p. 43; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 37; *Hume, N. & E.* p. 258; *id. Cat.* no. 415; *Scully, S. F.* viii, p. 290; *Sharpe, Cat. B. M.* vii, p. 360; *Oates in Hume's N. & E.* 2nd ed. i, p. 55.

*Coloration.* Forehead, crown, and nape chestnut; ear-coverts chestnut, each feather blackish near the tip and edged with white; lores, chin, and upper throat black with a chocolate tinge; cheeks mingled chestnut and black; mantle and sides of neck olive-brown, each feather with a semicircular black mark near the end; lower back plain olive-brown; rump and upper tail-coverts slaty grey; tail ashy, suffused with golden yellow on the outer webs; wing-coverts olive-brown, the greater series broadly tipped with deep ferruginous; primary-coverts and winglet yellow on the outer webs, ashy on the inner; outer webs of the primaries and secondaries bright golden yellow; tertiaries and tips of the secondaries ashy blue; the base of the outer webs of the secondaries golden red; lower plumage pale fulvous, washed with olivaceous on the sides of the body and under tail-coverts, each feather of the throat and breast with a narrow crescentic black bar near the end and tipped with fulvous white.

The young are at first without the black marks on the throat, breast, and back, but they soon acquire them.

The only variation this bird exhibits is in the colour of the ear-coverts; Nepal birds have a great deal of black on the ear-coverts, and the black diminishes in quantity as we proceed towards the north-west, till on arrival at Chamba the ear-coverts are almost entirely chestnut.

Legs and feet pale brown; iris pale yellowish brown; bill black (*Hume*); iris greyish brown (*Scully*).

Length nearly 11; tail 4·8; wing 4·2; tarsus 1·5; bill from gape 1·1.

*Distribution.* The Himalayas from Chamba to Nepal, up to about 7000 feet.

*Habits, &c.* Scully remarks that this species moves about very rapidly and noiselessly amongst bushes, and its note is subdued and not unmusical.

It breeds from May to July, constructing a nest of dead leaves bound together with ferns and grass in a low tree or bush, and laying from two to four eggs, which are blue marked with brownish red and measure 1·2 by ·82.

### 83. **Trochalopterum erythrolæma.** *Hume's Laughing-Thrush.*

Trochalopterum erythrolæma, *Hume, S. F.* x, p. 153 (1881); *Sharpe, Cat. B. M.* vii, p. 363; *Hume, S. F.* xi, p. 163.

*Coloration.* Lores and point of chin dusky brown; the entire head, neck, chin, and throat deep chestnut, the forehead tinged with ashy; sides of neck and back olive-grey, each feather with a large black subterminal spot and a paler fringe; rump and upper tail-coverts slaty grey; breast chestnut, with a round dusky or black spot on each feather and a paler fringe; centre of abdomen pale ferruginous; sides, vent, and under tail-coverts deep olivaceous; tail ashy, suffused with golden yellow on the outer webs; wing-coverts olive-brown, the greater series broadly tipped with deep ferruginous; primary-coverts and winglet yellow on the outer webs, ashy on the inner; outer webs of the primaries and secondaries bright golden yellow; tertiaries and tips of the secondaries ashy blue; the base of the outer webs of the secondaries golden red.

Legs and feet fleshy brown, pinker on feet; bill blackish brown; iris grey (*Hume*).

Length about 10; tail 4·5; wing 3·7; tarsus 1·5; bill from gape 1·1.

*Distribution.* Discovered by Hume near Matchi on the eastern hills of Manipur, and not yet known to occur elsewhere.

The next two species, I regret to say, must in future be known to ornithologists by names different to those they have hitherto borne. An examination of Gould's type and description of *Ianthocincla chrysoptera* clearly shows that he had a specimen from the Khási hills before him, belonging to the species which Blyth subsequently named *Garrulax ruficapillus.* This latter name will become a synonym of Gould's. The Himalayan species will consequently be without a name, but as Hodgson figured it and named it *T. nigrimentum* in his MSS., I propose to use his name for it. He notes on the drawing that he considered this species to be merely the young of *T. erythrocephalum*, but he appears afterwards to have altered his opinion and named it.

### 84. **Trochalopterum chrysopterum.** *The Eastern Yellow-winged Laughing-Thrush.*

Ianthocincla chrysoptera, *Gould, P. Z. S.* 1835, p. 48.
Garrulax ruficapillus, *Blyth, J. A. S. B.* xx, p. 521 (1851).
Trochalopteron ruficapillum (*Blyth*), *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 104; *Hume, S. F.* vii, p. 385; *id. Cat.* no. 415 bis; *Sharpe, Cat. B. M.* vii, p. 363; *Hume, S. F.* xi, p. 163.

*Coloration.* Forehead and lores grey with black shafts; anterior half of crown reddish brown, blending into the bright chestnut of the posterior half and of the nape; a very broad superciliary band, reaching to the nape, ash-grey; ear-coverts ashy rufous; chin and cheeks grey mingled with blackish; throat and fore neck deep chestnut-brown; the sides of the neck and back fulvous grey, each feather with a rounded brown mark near the tip; rump and upper tail-coverts slaty grey; breast rufous, each feather with an ill-defined lunate bar; abdomen dull fulvous; sides of the body, vent, and under tail-coverts olivaceous; tail ashy, suffused with golden yellow on the outer webs; wing-coverts olive-brown, the greater series broadly tipped with deep ferruginous; primary-coverts and winglet yellow on the outer webs, ashy on the inner; outer webs of the primaries and secondaries bright golden yellow; tertiaries and tips of the secondaries ashy blue, the base of the outer webs of the secondaries golden red.

Iris clay-coloured; bill and legs brown (*Cockburn*); iris grey; legs pink-brown (*Godw.-Aust.*).

Length about 10; tail 4·5; wing 4·1; tarsus 1·55; bill from gape 1·1.

*Distribution.* The Khási hills, where this species has been obtained at Shillong, at Cherra Poonjee, and on Hengdan Peak.

### 85. **Trochalopterum nigrimentum.** *The Western Yellow-winged Laughing-Thrush.*

Trochalopteron nigrimentum, *Hodgson, MSS.* fig. 820 (in Library of Zool. Soc. of London); *Oates in Hume's N. & E.* 2nd ed. i, p. 57.
Garrulax chrysopterus (*Gould*), *apud Blyth, Cat.* p. 97.
Pterocyclus chrysopterus (*Gould*), *apud Horsf. & M. Cat.* i, p. 206.
Trochalopteron chrysopterum (*Gould*), *apud Jerd. B. I.* ii, p. 43; *Hume, N. & E.* p. 259; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 76; *Hume, Cat.* no. 416; *Sharpe, Cat. B. M.* vii, p. 362; *Hume, S. F.* xi, p. 165.

*The Yellow-winged Laughing-Thrush,* Jerd.; *Tarphom-pho,* Lepch.; *Paniong,* Bhut.

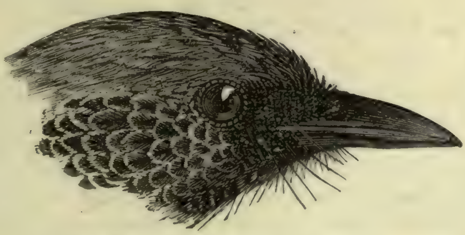

Fig. 27.—Head of *T. nigrimentum.*

*Coloration.* Forehead rufous with black shafts; anterior portion of crown and the sides of the crown nearly up to the nape deep grey, each feather black in the middle; posterior part of crown and nape bright chestnut; ear-coverts black, each feather margined with pale pinkish white; lores, cheeks, chin, and upper throat black, the two latter parts mottled with rufous; the upper back, the whole neck, and the lower throat and the breast rufous; each feather of the back and neck with a large black semicircular spot, and those of the breast with a narrow black crescentic bar; lower back plain rufous; rump ard upper tail-coverts olive-green; tail deep slaty, the outer webs suffused with golden yellow; wing-coverts olive-brown, the greater series tipped with ferruginous; winglet and primary-coverts yellow on the outer webs, ashy on the inner; tertiaries greenish, tipped with ashy blue, the outer webs of the primaries and secondaries bright golden yellow, tinged with red at the base of the secondaries and tipped with slaty blue; middle of the abdomen rufous; remainder of the lower plumage olivaceous brown.

Bill dusky brown; legs horny yellow-brown; iris red (*Jerdon*).

Length about 10; tail 4·6; wing 4·1; tarsus 1·55; bill from gape 1·1.

*Distribution.* The Himalayas from Nepal to the Daphla hills in Assam, in which latter locality Godwin-Austen procured it on Shengorh peak at 7000 feet.

*Habits, &c.* Jerdon tells us that this species is very common about Darjiling, where it may be often seen on the road, picking up insects and grain among the dung of cattle, but rapidly hopping off and diving into the nearest thicket on being approached.

It breeds from April to June in scrubby jungle, building its nest, which is composed of twigs and leaves, in bushes not many feet above the ground. The eggs, three in number, are blue marked with chocolate and measure 1·17 by ·82.

### 86. **Trochalopterum melanostigma.** *The Chestnut-headed Laughing-Thrush.*

Garrulax melanostigma, *Blyth, J. A. S. B.* xxiv, p. 268 (1855).
Trochalopteron melanostigma (*Blyth*), *Blyth, Birds Burm.* p. 108; *Wardlaw Ramsay, Ibis,* 1877, p. 464; *Hume & Dav. S. F.* vi, p. 291; *Hume, Cat.* no. 415 ter; *Oates, B. B.* i, p. 39; *Sharpe, Cat. B. M.* vii, p. 364.

*Coloration.* Forehead, lores, chin, and cheeks black, the black of the lores extending slightly over the eye; a short supercilium, the ear-coverts and the sides of the nape silvery grey streaked with black; crown of the head bright chestnut, contracting to a point on the nape; back, rump, lesser wing-coverts, and the upper tail-coverts olive-brown, tinged with ochraceous on the back; greater wing-coverts olive-brown, tipped with ferruginous; primary-coverts black; the outer webs of the primaries and secondaries and almost the whole of the tertiaries olive-yellow; tail olive-yellow; throat and upper breast ferruginous, extending in a paler form to the breast and centre of the abdomen; sides of the abdomen, flanks, and under tail-coverts olive-grey.

Legs, feet, and claws very pale brown to reddish brown; bill black; iris brown or hazel-nut brown (*Hume & Davison*).

Length 10·5; tail 4·4; wing 4·1; tarsus 1·5; bill from gape 1·2.

*Distribution.* Karennee at 5000 feet; the pine forests of the Salween river; Muleyit mountain in Tenasserim from 3000 feet to the summit.

*Habits, &c.* According to Mr. Davison these birds keep in parties of six or eight, feeding chiefly on the ground and keeping much in the brushwood. They are neither very noisy nor very silent; they utter from time to time a fine whistling call. They appear to feed exclusively on insects.

### 87. **Trochalopterum phœniceum.** *The Crimson-winged Laughing-Thrush.*

Ianthocincla phœnicea, *Gould, Icon. Av.* pl. 3 (1837).
Garrulax phœniceus (*Gould*), *Blyth, Cat.* p. 97.
Trochalopteron phœniceum (*Gould*), *Horsf. & M. Cat.* i, p. 210; *Jerd. B. I.* ii, p. 48; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 105; *Hume, N. & E.* p. 262; *id. Cat.* no. 422; *Sharpe, Cat. B. M.* vii, p. 371; *Hume, S. F.* xi, p. 168; *Oates in Hume's N. & E.* 2nd ed. i, p. 58.

*Tilji-pho*, Lepch.; *Repcha*, Bhut.

*Coloration.* Lores, cheeks, ear-coverts, round the eye, and a patch on the side of the neck crimson; a short and somewhat irregular supercilium black; the whole upper plumage olive-brown, the feathers of the crown with partially concealed black margins; tail black, broadly tipped with orange, the outermost feathers suffused with orange throughout; wing-coverts olive-brown; primary-coverts dusky, edged with olive-brown; winglet suffused with crimson on the outer webs and the outermost coverts edged with the same; outer webs of primaries edged with crimson and yellowish, the former increasing and the latter diminishing in extent inwards; secondaries with the middle portion of the outer webs edged with pale blue, the terminal portion with crimson, the bases suffused with olive-green; the whole lower plumage fulvous olive-brown, tinged with ashy on the abdomen; under tail-coverts black, broadly tipped with crimson.

Legs and feet brown with a purplish tinge; bill blackish; iris crimson or brownish-maroon to lac-red; bare and orbital skin leaden-dusky (*Hume*).

Length about 9; tail 4; wing 3·2; tarsus 1·3; bill from gape ·9.

*Distribution.* Nepal; Sikhim; Bhutan; Khási hills; Lhota Nága hills; Manipur. This species appears to range chiefly from 4000 to 6000 ft. of elevation.

*Habits, &c.* Breeds from April to June, constructing its nest of bamboo leaves and twigs, lined with fibres and moss, in dense undergrowth, and laying three eggs, which are blue marked with spots and lines of maroon and purple and measure 1·04 by ·74.

### 88. **Trochalopterum subunicolor.** *The Plain-coloured Laughing-Thrush.*

Trochalopteron subunicolor, *Hodgs.*, *Blyth*, *J. A. S. B.* xii, p. 952 (1843); *Horsf. & M. Cat.* i, p. 211; *Jerd. B. I.* ii, p. 44; *id. Ibis*, 1872, p. 306; *Blanf. J. A. S. B.* xli, pt. ii, p. 46; *Hume, N. & E.* p. 259; *id. Cat.* no. 417; *Sharpe, Cat. B. M.* vii, p. 368; *Oates in Hume's N. & E.* 2nd ed. i, p. 59.

Garrulax subunicolor (*Hodgs.*), *Blyth, J. A. S. B.* xiv, p. 599 (1845); *id. Cat.* p. 96.

*Tarmal-pho*, Lepch.; *Nabom*, Bhut.

*Coloration.* Forehead, crown, and nape dark ashy brown, the forehead tinged with fulvous; sides of neck and the whole upper plumage olive-brown, each feather margined with black; middle tail-feathers olive-yellow, the others black with the outer webs suffused with olive-yellow for a great portion of their length, the two median pairs indistinctly, the others distinctly tipped with white; wing-coverts plain olive-brown; primary-coverts dark brown; winglet ashy yellow outside, dusky within; the exterior webs of the outer primaries grey, the others and the secondaries with a progressively increasing amount of yellow, duller towards the tips; tertiaries merely tinged with yellow and more or less tipped with white; ear-coverts brown, the shafts pale; lores blackish; cheeks, chin, and throat like the back, but darker, similarly margined with black, and a few feathers under the face tipped whitish; remainder of lower plumage olivaceous brown, tinged with fulvous on the abdomen and all the feathers margined with black; under tail-coverts and thighs plain olivaceous brown.

The young resemble the adults except that at first the black tips to the feathers are merely indicated.

Bill dusky; legs reddish brown; iris red-brown (*Jerdon*); iris yellowish grey (*Blanford*).

Length about 9; tail 4·1; wing 3·6; tarsus 1·35; bill from gape ·85.

*Distribution.* Nepal and Sikhim up to 11,000 feet.

*Habits.* Breeds in Nepal, according to Hodgson, from April to June, constructing its nest of grass and moss lined with leaves in some low branch of a tree. The eggs, three or four in number, are said to be unspotted greenish blue and to measure about 1·07 by ·7.

### 89. **Trochalopterum affine.** *The Black-faced Laughing-Thrush.*

Garrulax affinis, *Hodgs.*, *Blyth*, *J. A. S. B.* xii, p. 950 (1843); *id. Cat.* p. 97.

Pterocyclus affinis (*Hodgs.*), *Horsf. & M. Cat.* i, p. 207.

Trochalopteron affine (*Hodgs.*), *Jerd. B. I.* ii, p. 45; *Blanf. J. A. S. B.* xli, pt. ii, p. 46; *Hume, Cat.* no. 419; *Sharpe, Cat. B. M.* vii, p. 357.

*Coloration.* Forehead, crown, and nape dark brown tinged with rufous, paler on the forehead; lores and sides of head black; cheeks and a large patch behind the ear-coverts white, extending to the sides of the neck where it becomes pale rufous; hind neck rufous-brown, blending with the darker brown of the head; back and scapulars rufous-brown, each feather broadly terminated with pale grey; rump olive-brown; upper tail-coverts ferruginous; tail slaty blue, three quarters of all the outer webs and of the inner webs of the middle pair of feathers overlaid with bright golden yellow; wing-coverts rufous; primary-coverts black; winglet and tertiaries slaty blue; the outer webs of the primaries and secondaries bright golden yellow on the greater portion of their length, slaty blue elsewhere; chin black; throat rufous-brown; breast paler rufous, each feather narrowly edged with grey; remainder of lower plumage rufous-brown.

Bill black; feet reddish brown; iris brown (*Jerdon*); iris olive (*Blanford*).

Length about 10; tail 5·2; wing 4·1; tarsus 1·5; bill from gape 1.

*Distribution.* Nepal, Sikhim, and Bhutan at high elevations, being found from 8000 to 13,000 feet.

*Habits.* Blanford observes that this species is subalpine; it ranges much above all other forms. He found it in rhododendron scrub and on the skirts of the pine woods in Sikhim.

### 90. **Trochalopterum variegatum.** *The Eastern Variegated Laughing-Thrush.*

Cinclosoma variegatum, *Vigors, P. Z. S.* 1831, p. 56; *Gould, Cent.* pl. 16.
Garrulax variegatus (*Vig.*), *Blyth, Cat.* p. 97.
Pterocyclus variegatus (*Vig.*), *Horsf. & M. Cat.* i, p. 207.
Trochalopteron variegatum (*Vig.*), *Jerd. B. I.* ii, p. 45; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 37; *Jerd. Ibis,* 1872, p. 305; *Hume, N. & E.* p. 260 (part.); *id. S. F.* vii, p. 457; *id. Cat.* no. 418; *Sharpe, Cat. B. M.* vii, p. 359 (part.); *Oates in Hume's N. & E.* 2nd ed. i, p. 59.

*The Variegated Laughing-Thrush,* Jerd.; *Ganza,* Nep.

*Coloration.* Forehead fulvous; crown and nape ashy brown; feathers on the eyelids and a spot behind the eye white; lores black, extending over and below the eye to the upper part of the ear-coverts; remainder of ear-coverts white with a black patch; chin and upper throat black; cheeks fulvous, produced downwards and meeting round the black throat; sides of neck and the whole upper plumage olive-brown; wing-coverts olive-brown, the greater one broadly edged with rufous; winglet and primary-coverts black; the inner webs of the tertiaries black, the outer grey tipped with white; outer webs of primaries and secondaries bright golden yellow tinged with rufous and tipped with white; a large black patch on the secondaries; the middle four pairs of tail-feathers black on three quarters of their length, then ashy yellow and tipped with white;

the other feathers ashy yellow on the inner webs, olive-yellow on the outer and tipped with white; breast and sides of the body fulvescent ashy brown; remainder of lower plumage bright tawny buff.

Bill black; legs and feet pale reddish orange-brown; iris pale yellow-green, brown, raw sienna-brown, pale yellowish brown (*Hume*).

Length about 11; tail 5·2; wing 4·1; tarsus 1·5; bill from gape 1·1.

The young have the outer webs of the wing-quills bright yellow as in the adult, which they also resemble in other respects.

*Distribution.* The Himalayas from Chamba to Nepal at elevations of, generally, more than 5000 feet.

*Habits, &c.* Breeds from April to June, constructing a nest of grass and leaves in a low branch of a tree or in a bush. The eggs, four or five in number, are blue marked with reddish brown and measure 1·11 by ·78.

### 91. **Trochalopterum simile.** *The Western Variegated Laughing-Thrush.*

Trochalopteron simile, *Hume, Ibis,* 1871, p. 408; *Hume & Henders. Lah. to Yark.* p. 193, pl. vii; *Hume, S. F.* iii, p. 407; *id. Cat.* no. 418 bis; *Biddulph, Ibis,* 1881, p. 53; *Scully, Ibis,* 1881, p. 439; *Oates in Hume's N. & E.* 2nd ed. i, p. 60.
Trochalopteron variegatum, *apud Cock & Marsh. S. F.* i, p. 354.

*Coloration.* Resembles *T. variegatum.* Differs in having the outer webs of the wing-feathers slaty blue, and in having those parts of the tail slaty blue which in the other species are either ashy yellow or olive-yellow.

Legs and feet flesh-colour; bill black; iris brown (*Dr. G. Henderson*).

Of the same size as *T. variegatum.*

*Distribution.* The western portion of Kashmir and the Hazára country. Scully states that this bird is common and a permanent resident in Sharot and Bargo, higher up the valley above Gilgit, at 5500 feet.

*Habits, &c.* The nest was found by Messrs. Cock and Marshall near Murree on the 15th June, built at the end of a bough of a fir-tree about 20 feet from the ground. The nest and eggs appear to resemble those of the last species.

### 92. **Trochalopterum squamatum.** *The Blue-winged Laughing-Thrush.*

Ianthocincla squamata, *Gould, P. Z. S.* 1835, p. 48; *Jard. & Selby, Ill. Orn.* new ser. pl. iv.
Cinclosoma melanura, *Hodgs. As. Res.* xix, p. 147 (1836).
Garrulax squamatus (*Gould*), *Blyth, Cat.* p. 96.
Trochalopteron squamatum (*Gould*), *Horsf. & M. Cat.* i, p. 211;

*Jerd. B. I.* ii, p. 46; *id. Ibis,* 1872, p. 306; *Hume, N. & E.* p. 260; *id. Cat.* no. 420; *Sharpe, Cat. B. M.* vii, p. 367; *Oates in Hume's N. & E.* 2nd ed. i, p. 61.

*Tarmal-pho,* Lepch.; *Nabom,* Bhut.

*Coloration.* A black streak over the eye from the lores to the nape; lores and sides of head rufous; upper tail-coverts chestnut; with this exception the whole upper plumage is rufescent olive-brown, each feather with a terminal lunate black tip; wing-coverts chestnut, dusky internally; primary-coverts dusky edged with black; winglet bluish ashy; the outer primaries with the outer webs pale blue, the others with them entirely black; basal portion of the outer webs of the secondaries chestnut, extending slightly to the tertiaries; remainder of wing black, the later quills minutely tipped white; tail bronze-colour, the tips chestnut; lower plumage fulvous, each feather with a terminal black bar; under tail-coverts and thighs castaneous.

Legs and feet fleshy; bill blackish, pale greyish horny at base of lower mandible and tip of both mandibles; iris brilliant white with a faint greenish tinge (*Hume*).

Length about 10; tail 4; wing 3·8; tarsus 1·5; bill from gape 1.

No writer appears to have noticed the two very distinct varieties of this bird which seem to be found together in every locality in the same manner that *Garrulax pectoralis* and *G. moniliger* occur together. In *T. squamatum,* to which the above description applies, the tail is bronze-colour; in *T. melanurum* the tail is deep black, and moreover the crown of the head is ashy and the lower plumage and sides of the head olivaceous. Hodgson collected both varieties and he figured the latter bird. There is a very large series of this bird in the British Museum and it is quite evident that the colour of the tail is not a question of sex, nor does it appear to be one of age. I keep the two races together at present and content myself with pointing out the differences in hopes that the question may be worked out by those who have the opportunity.

Hume informs us that in this species the male has grey lores, and the female fulvous-brown ones. This is certainly the case in the only two specimens in the Hume Collection which are sexed; but I question if the inference drawn from it is correct, as it is altogether opposed to the rule which obtains in all the *Crateropodinæ*—the perfect identity of the sexes.

*Distribution.* The Himalayas from Nepal to the Daphla hills; the Khási hills; the Lhota Nága hills; Manipur. This species appears to be found from 2000 to 6000 feet.

*Habits, &c.* Breeds from April to June, constructing a nest of the usual form in a bush near the ground and laying from three to five eggs, which are spotless blue and measure 1·2 by 1·87.

### 93. **Trochalopterum cachinnans.** *The Nilgiri Laughing-Thrush.*

Crateropus cachinnans, *Jerd., Madr. Journ.* x, p. 255, pl. 7 (1839).
Garrulax cachinnans (*Jerd.*), *Blyth, Cat.* p. 97.

Pterocyclus cachinnans (*Jerd.*), *Horsf. & M. Cat.* i, p. 208.
Trochalopteron cachinnans (*Jerd.*), *Jerd. B. I.* ii, p. 48; *Blanf. J. A. S. B.* xxxvii, pt. ii, p. 175; *Jerd. Ibis*, 1872, p. 306; *Hume, N. & E.* p. 263; *id. Cat.* no. 423; *Sharpe, Cat. B. M.* vii, p. 373; *Davison, S. F.* x, p. 377; *Oates in Hume's N. & E.* 2nd ed. i, p. 62.

*Coloration.* Point of the forehead black; sides of the forehead white produced back as a broad supercilium to the ear-coverts; crown and nape slaty brown, the feathers very narrowly margined with black, the lateral feathers of the crown and forehead black on their inner, white on their outer, edges, forming a black line above, and next to, the supercilium; lores, chin and a streak behind the eye black; feathers of the eyelids white; ear-coverts pale rufous; the sides of the nape at the end of the supercilia ashy, which colour suffuses the whole nape; upper plumage, sides of neck, wings, and tail olive-brown; throat and breast bright rufous extending to the abdomen, which, however, is much duller; thighs, vent, under tail-coverts, and sides of the body rufescent olive-brown; under wing-coverts rufous.

Legs and feet black; bill black; iris red (*Miss Cockburn*); iris crimson (*Davison*).

Length about 9; tail 4; wing 3·7; tarsus 1·25; bill from gape ·9.

*Distribution.* Occurs over the whole of the Nilgiris from 4500 feet to the summit of the hills.

*Habits, &c.* Jerdon describes this bird as being noisy and abundant in all the woods on the summit of the Nilgiris, and, like others of the genus, living in small scattered flocks foraging about the thick brushwood.

It breeds from February to June, building a deep nest, which is frequently lined with fur and feathers, in bushes. The eggs are three to five in number, blue marked with red and brown, and measure 1·0 by ·76.

### 94. **Trochalopterum cinnamomeum.** *Davison's Laughing-Thrush.*

Trochalopterum cinnamomeum, *Davison, Ibis*, 1886, p. 204.

*Coloration.* Forehead, crown, and nape hair-brown, the nape tinged with ashy, the lateral feathers of the crown white on their outer webs, forming part of a broad creamy white supercilium extending to the end of the ear-coverts; upper plumage, wings, and tail olive-brown, with a greenish tinge; lores rusty-brown; sides of the head pale ochraceous; chin, and lower part of cheeks, dark cinnamon-brown; remainder of lower plumage deep rufous, tinged with olivaceous on the sides, vent, and under tail-coverts; under wing-coverts rufous.

The colour of the bill &c. has not been recorded.

Length about 8; tail 3·7; wing 3·5; tarsus 1·3; bill from gape ·9.

*Distribution.* Unknown; but probably, as suggested by Davison, the Pálghát hills in Southern India. Apparently a very local and rare bird.

95. **Trochalopterum jerdoni.** *The Banasore Laughing-Thrush.*

Garrulax jerdoni, *Blyth, J. A. S. B.* xx, p. 522 (1851).
Trochalopteron jerdoni (*Blyth*), *Jerd. B. I.* ii, p. 49; *id. Ibis,* 1872, p. 306; *Morgan, S. F.* ii, p. 532; *Hume, Cat.* no. 424; *Sharpe, Cat. B. M.* vii, p. 373, pl. x; *Davison, S. F.* x, p. 378.

*Coloration.* Point of forehead black; crown and nape slaty brown, the edges of the feathers narrowly darker; a broad white supercilium, the feathers of which, next the crown, have the inner webs black, forming a narrow black band above the supercilium; lores and a line behind the eye black; ear-coverts greyish white; sides of neck ashy brown, continued back and meeting round the neck; upper plumage, wings, and tail olive-brown, tinged with rufous on the tail; chin and cheeks black; throat and breast streaked with dark ashy and white; abdomen rufous; sides, thighs, and under tail-coverts olivaceous brown; under wing-coverts rufous.

Bill dull black; iris crimson-lake; legs, feet, and claws plumbeous brown (*Davison*).

Length about 8·5; tail 3·5; wing 3·2; tarsus 1·3; bill from gape ·9.

*Distribution.* The Brahmagiri hills in Coorg; the Banasore Peak, Wynaad, at 5000 to 6000 feet, and, according to Mr. Morgan, the Pálghát hills and the Chinnacoonoor Ghát, Nilgiris. The species seen in the last two localities may, however, have been different, possibly *T. fairbanki.*

96. **Trochalopterum fairbanki.** *The Palni Laughing-Thrush.*

Trochalopterum fairbanki, *Blanf. J. A. S. B.* xxxvii, pt. ii, p. 175, pl. xvii *a* (1868); *Jerd. Ibis,* 1872, p. 306; *Hume, S. F.* iii, p. 413; *Fairbank, S. F.* v, p. 404; *Hume, S. F.* vii, p. 36; *id. Cat.* no. 423 bis; *Sharpe, Cat. B. M.* vii, p. 374; *Davison, S. F.* x, p. 379; *Oates in Hume's N. & E.* 2nd ed. i, p. 64.

*Coloration.* Forehead, crown, and nape black, or intensely dark brown; a broad white supercilium extending to the nape; lores and a band behind the eye black; ear-coverts and sides of head grey; sides of neck ashy; upper plumage, wings, and tail olive-brown tinged with rusty, especially on the upper tail-coverts; chin, throat, and breast ashy, streaked with white; remainder of lower plumage bright rufous.

Iris dark red, red-brown (*Fairbank*).

Length about 8·5; tail 3·7; wing 3·5; tarsus 1·3; bill from gape ·95.

*Distribution.* The Palni and Anamulli hills in South Travancore above 3000 feet.

*Habits, &c.* Breeds on the Palnis in May. A nest found in this month, at an elevation of 6500 feet, was placed in a crotch of a tree at about ten feet from the ground. The eggs are blue, marked in various ways with red and brown. One egg measured 1·0 by ·8.

### 97. **Trochalopterum meridionale.** *Blanford's Laughing-Thrush.*

Trochalopteron fairbanki, *Blanf., Hume, S. F.* vii, p. 36 (1878).
Trochalopterum meridionale, *Blanf. J. A. S. B.* xlix, p. 142 (1880); *Hume, S. F.* ix, p. 505; *Sharpe, Cat. B. M.* vii, p. 375.

*Coloration.* Forehead, crown, nape, and lores dusky brown; a short white band over the lores reaching only to the eye; sides of head and neck, the whole upper plumage, wings, and tail ashy olive-brown, tinged with fulvous on the upper tail-coverts; chin nearly white; throat and breast white, streaked with ashy; centre of abdomen white; sides and under tail-coverts bright rufous; vent and thighs olivaceous brown.

Iris dark red; bill black; legs dusky (*Bourdillon*).

Length about 8·5; tail 3·7; wing 3·4; tarsus 1·3; bill from gape ·9.

*Distribution.* Travancore. There are specimens in the British Museum from Chinipanni, the Patnas, Mynall, and the Tinnevelly boundary, 4000 feet.

### 98. **Trochalopterum virgatum.** *The Manipur Streaked Laughing-Thrush.*

Trochalopteron virgatum, *Godwin-Austen, P. Z. S.* 1874, p. 46; *id. J. A. S. B.* xliii, pt. ii, p. 162; *Hume, S. F.* iii, p. 395; *id. Cat.* no. 425 bis; *Sharpe, Cat. B. M.* vii, p. 379.

*Coloration.* Point of the forehead and a long supercilium extending to the nape white; lores ferruginous; cheeks, lower part of ear-coverts, and under the eye fulvous white; upper part of ear-coverts ferruginous, with pale shaft-streaks; crown, nape, mantle, lesser wing-coverts, and sides of the neck reddish brown, with very white shafts; lower back, scapulars, rump, and upper tail-coverts ashy brown, with white shafts; tail olive-brown, distinctly cross-rayed, the outer feathers tipped white; greater wing-coverts chestnut, with white shafts and tips; primary-coverts pale rufous, with white shafts and brown tips; winglet deep ashy, with the outer webs white along the shafts; wings ashy; the middle feathers washed with chestnut, and the tertiaries edged with paler ashy; chin and throat deep chestnut, shading off into yellowish buff on the remainder of the lower plumage, all the feathers with white shafts.

Legs and feet pale greyish fleshy; soles yellowish; bill deep brown; iris brown; orbital skin leaden-dusky (*Hume*).

Length about 9·5; tail 4·5; wing 3·4; tarsus 1·25; bill from gape ·9.

*Distribution.* The first specimen of this bird was obtained near the village of Razami under the Kopamedza ridge at 5000 feet in the Nága hills. Hume subsequently observed it in the higher portions of the Eastern hills of Manipur about Aimole, Matchi, and Tankool Hoondoong.

*Habits, &c.* Hume observes that this bird haunts dense undergrowth and is never seen except by accident, and hence, though not, he believes, very scarce in the localities in which he found it, it is still very hard to procure. It has a peculiar soft single-note call, by following up which he procured all his specimens.

### 99. **Trochalopterum lineatum.** *The Himalayan Streaked Laughing-Thrush.*

Cinclosoma lineatum, *Vigors, P. Z. S.* 1831, p. 56.
Cinclosoma setifera, *Hodgs. As. Res.* xix, p. 148 (1836).
Garrulax lineatus (*Vig.*), *Blyth, Cat.* p. 97.
Pterocyclus lineatus (*Vig.*), *Horsf. & M. Cat.* i, p. 209.
Trochalopteron lineatum (*Vig.*), *Jerd. B. I.* ii, p. 50; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 38; *Jerd. Ibis,* 1872, p. 308; *Cock & Marsh. S. F.* i, p. 354; *Hume & Henders. Lah. to Yark.* p. 195, pl. 8; *Hume, N. & E.* p. 264; *Brooks, S. F.* iii, p. 238; *Hume, Cat.* no. 425; *Scully, S. F.* viii, p. 291; *Biddulph, Ibis,* 1881, p. 54, 1882, p. 272; *Scully, Ibis,* 1881, p. 440; *Sharpe, Cat. B. M.* vii, p. 377; *Oates in Hume's N. & E.* 2nd ed. i, p. 64.
Trochalopteron imbricatum (*Hodgs.*), *apud Hume, N. & E.* p. 266.

*The Streaked Laughing-Thrush,* Jerd.

*Coloration.* Forehead, crown, nape, and mantle dark ashy, streaked with dusky, the shafts black; lower back and wing-coverts reddish brown, with white shafts; rump and upper tail-coverts plain ashy; tail washed with rufous, cross-rayed, with a subterminal black band and grey tips; wings chiefly rufous on the outer webs, the tertiaries edged with grey; lores and ring round the eye mingled white and grey; cheeks, ear-coverts, and an indistinct supercilium castaneous; chin, throat, breast, and upper abdomen chestnut, all the feathers with ashy margins and those on the breast with glistening white shafts; lower abdomen, flanks, and under tail-coverts ashy brown.

Bill dusky; the base of the lower mandible greyish or brownish horny; iris brown or reddish brown; feet fleshy brown; claws livid horny (*Scully*).

Length about 8; tail 3·6; wing 3·1; tarsus 1·05; bill from gape ·9.

The above description applies to Nepal birds, which are extremely rufous and richly coloured. Further to the north-west the grey margins of the feathers of the lower plumage become much wider and the streaks on the head and back are much paler. In Kashmir and Gilgit the prevailing colour of the lower plumage is grey, and the rufous is in pale streaks; the shafts of the breast-feathers are much whiter, and frequently terminate in a triangular terminal spot; and the upper plumage is more ashy.

*Distribution.* The whole of the Himalayas from Nepal to the extreme west of Kashmir and the Hazára country. This species appears to be found up to about 9000 feet.

*Habits, &c.* This is a very common bird throughout its range, and one of the best known of Himalayan birds, frequenting the neighbourhood of bungalows at the hill-stations. It breeds from April to September, constructing a bulky, deep, nest of grass and fine stems of herbaceous plants in thick bushes near the ground. The eggs, usually three in number, are greenish blue without any marks, and measure 1·01 by ·73.

### 100. **Trochalopterum imbricatum.** *The Bristly Laughing-Thrush.*

Garrulax imbricatus, *Blyth, J. A. S. B.* xii, p. 951 (1843); *id. Cat.* p. 98.
Pterocyclus imbricatus (*Blyth*), *Horsf. & M. Cat.* i, p. 208.
Trochalopteron setifer (*Hodgs.*), *apud Jerd. B. I.* ii, p. 51.
Trochalopterum imbricatum (*Hodgs.*), *Hume, Cat.* no. 426; *Sharpe, Cat. B. M.* vii, p. 379.

*Coloration.* Forehead, crown, nape, and hind neck dark reddish brown, with glistening black shafts, the feathers, especially those of the forehead, stiff and pointed; lores, a short supercilium, and sides of the head greyish brown with white shafts; mantle, scapulars, and sides of the neck reddish brown with grey margins and glistening white shafts; rump and upper tail-coverts olive-brown with pale shafts and obsolete narrow cross-bars; tail reddish brown, the outer feathers black towards the ends and tipped white; the outer primaries edged with grey, the others and all the coverts reddish brown, the tertiaries edged paler; chin and throat reddish brown; remainder of the lower plumage reddish brown with glistening white shafts; thighs and under tail-coverts olive-brown.

The colour of the bill &c. has not been recorded.

Length about 8·5; tail 3·8; wing 3·1; tarsus 1·1; bill from gape ·85.

*Distribution.* Bhutan only, whence there are three specimens in the British Museum.

No specimen of this rare bird is contained in either the Hodgson or the Hume Collection, and there is no evidence whatever to show that this species occurs in Nepal. Hodgson figures two birds, one of which is undoubtedly the ordinary form of *T. lineatum* and the other is a somewhat peculiar form of the same, but bearing no resemblance to *T. imbricatum.*

## Genus **GRAMMATOPTILA**, Reichenb., 1850.

The two birds of this genus may be recognized by their stout, short, deep bill, striated plumage, and by the long frontal hairs which reach over the nostrils. They inhabit the mountain-ranges of northern and north-eastern India, frequent dense jungle, go in parties, and have peculiar calls. They lay eggs which in some cases are spotless, in others spotted, and their proper place appears to be near *Trochalopterum.*

*Key to the Species.*

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|---|---|
| *a.* Feathers of crest not streaked with white; no brown bands on the sides of the crown ...... | *G. striata*, p. 103. |
| *b.* Feathers of crest streaked with white; a distinct brown band on each side of the crown ........ | *G. austeni*, p. 104. |

### 101. **Grammatoptila striata.** *The Striated Laughing-Thrush.*

Garrulus striatus, *Vigors, P. Z. S.* 1830, p. 7; *Gould, Cent.* pl. 37.
Keropia striata (*Vig.*), *Hodgs. in Gray's Zool. Misc.* p. 83; *Horsf. & M. Cat.* i, p. 209.
Turnagra striata (*Vig.*), *Blyth, Cat.* p. 95.
Grammatoptila striata (*Vig.*), *Jerd. B. I.* ii, p. 11; *id. Ibis,* 1872, p. 298; *Hume, N. & E.* p. 237; *Ball, S. F.* vii, p. 234; *Hume, Cat.* no. 382; *Scully, S. F.* viii, p. 287; *Sharpe, Cat. B. M.* vii, p. 450; *Oates in Hume's N. & E.* 2nd ed. i, p. 67.

*The Striated Jay-Thrush,* Jerd.; *Nampiok-pho,* Lepch.; *Kopiam,* Bhut.

*Coloration.* Whole upper plumage, sides of the head and neck, chin, and throat umber-brown (deepest on the crest) shading off into pale brown on the lower plumage; every feather of the plumage, both upper and lower, the wing-coverts, and tertiaries with a long median white streak, the streaks larger but less defined on the abdomen and under tail-coverts; quills dark brown, the outer webs of the first few primaries hoary, of the others pale chestnut; tail chestnut; the outer feathers with a minute white tip.

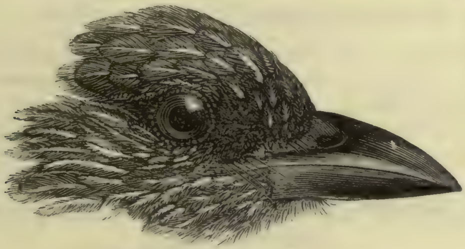

Fig. 28.—Head of *G. striata.*

Bill black; legs dusky plumbeous; iris red-brown (*Jerdon*).

Length about 12; tail 5·3; wing 5·6; tarsus 1·7; bill from gape 1·2.

*Distribution.* The Himalayas from the Sutlej valley to Bhutan from 6000 to 9000 feet. This species has, no doubt erroneously, been recorded from Birbhum in Bengal.

*Habits, &c.* Jerdon states that this bird has some very peculiar calls, one of them resembling the chucking of a hen which has just laid an egg. It breeds from May to July, constructing a cup-shaped nest of grass &c. in a low tree, and apparently laying only two eggs. These are blue, some quite spotless, others marked with a few specks of brownish red. They measure 1·3 by ·9.

### 102. **Grammatoptila austeni.** *Austen's Striated Laughing-Thrush.*

Grammatoptila striata (*Vigors*), *Godwin-Austen, J. A. S. B.* xlv, pt. ii, p. 73; xlvii, pt. ii, p. 15; *Hume, S. F.* xi, p. 135.

*Coloration.* Resembles *G. striata*, but differs in having no white shaft-stripes on the crest-feathers, and in having two broad dark brown bands, one on either side of the head, nearly meeting on the nape behind. The shaft-stripes on the upper plumage and sides of the head are much narrower, being hardly any broader than the shafts themselves, and the streaks on the lower surface are also much narrower and better defined.

Iris red-brown; legs and feet pale grey (*Godwin-Austen*).

Of the same size as *G. striata.*

*Distribution.* The Daphla and the Eastern Nága hills. In the former this species was common under Toruputu Peak at about 6000 feet in January.

*Habits, &c.* Godwin-Austen observes of this species that it associates in large flocks, and that the note is a chatter mingled with another call somewhat simulating the low quack of a duck. It feeds entirely on fruits and seeds.

## Genus **STACTOCICHLA**, Sharpe, 1883.

The only bird of this genus is characterized by a rather long slender bill, resembling that of *Garrulax*, but somewhat longer in proportion to the size of the head, and by having the throat and breast spotted like those of a Thrush. It is very rare and little is known about it.

### 103. **Stactocichla merulina.** *The Spotted-breasted Laughing-Thrush.*

Garrulax merulinus, *Blyth, J. A. S. B.* xx, p. 521 (1851); *Jerd. Ibis,* 1872, p. 303; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 162; *Hume, S. F.* iii, p. 394; *id. Cat.* no. 413 bis; *Hume, S. F.* xi, p. 161.
Stactocichla merulina (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 449.

*Moh mepch*, of the Angámi Nágás.

*Coloration.* Entire upper plumage, sides of the head and neck, tail, and exposed part of closed wings rufescent olive-brown; a narrow white streak over the ear-coverts; forehead mottled with grey; chin, throat, and breast yellowish buff, broadly streaked with oval black stripes; centre of abdomen yellowish buff; sides of the body rufescent olive-brown; under tail-coverts bright ochraceous.

Legs and feet rather pale brown; upper mandible blackish, lower horny grey; iris pale pinkish buff; orbital skin pale leaden (*Hume*).

Length about 10·5; tail 3·8; wing 3·8; tarsus 1·6; bill from gape 1·3.

*Distribution.* The Khási, Nága, and Lhota Nága hills; the Eastern hills of Manipur.

*Habits, &c.* Hume describes this bird as a terrible skulk, clinging to dense thorny scrub. It is very vocal and has a great number of clear, beautiful notes, which it combines into a great variety of calls, and it has also a coughing, chuckling, oft-repeated note.

## Genus **ARGYA**, Lesson, 1831.

The birds of this genus differ from the Laughing-Thrushes in many points of structure. The covering-membrane of the nostril is partially clothed with plumes and the feathers of the forehead and those round the base of the bill are short, firm, and close. The tail is also relatively much longer and greatly graduated, each outer feather being only about half the length of the tail.

The Babblers of this genus are found all over the plains of India and Burma. They associate in small flocks, keep to the ground or near it, and are very noisy when disturbed. They make cup-shaped nests, chiefly in high grass, and lay unspotted blue eggs. Many of the species resemble each other closely.

### *Key to the Species.*

*a.* Head and back distinctly streaked with blackish or very dark brown.
  *a′.* Chin and throat rufous, with streaks .... *A. earlii*, p. 105.
  *b′.* Chin and throat white or very pale fulvous, without streaks.
    *a″.* Lower plumage pale fulvous ........ *A. caudata*, p. 106.
    *b″.* Lower plumage ferruginous.......... *A. gularis*, p. 107.
*b.* Head not streaked; back with oval brown spots ................................ *A. malcolmi*, p. 108.
*c.* Upper plumage entirely unstreaked.
  *c′.* Chin and throat rufous, lores dark ...... *A. subrufa*, p. 109.
  *d′.* Chin and upper throat white, lores white. *A. longirostris*, p. 109.

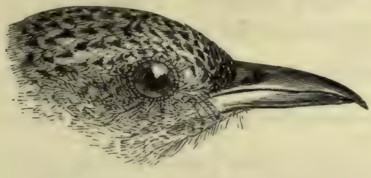

Fig. 29.—Head of *A. earlii.*

### 104. **Argya earlii.** *The Striated Babbler.*

Malacocercus earlii, *Blyth, J. A. S. B.* xiii, p. 369 (1844); *id. Cat.* p. 141; *Horsf. & M. Cat.* i, p. 222.
Chatarrhœa earlii (*Blyth*), *Jerd. B. I.* ii, p. 68; *Hume, N. & E.* p. 275; *Hume & Henders. Lah. to Yark.* pl. x; *Hume, Cat.* no. 439; *Barnes, Birds Bom.* p. 182; *Hume, S. F.* xi, p. 174.
Crateropus earlii (*Blyth*), *Oates, B. B.* i, p. 30.
Argya earlii (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 392; *Oates in Hume's N. & E.* 2nd ed. i, p. 68.

*The Striated Reed-Babbler*, Jerd.; *Burra-phenga*, Hindi.

*Coloration.* Upper plumage brown tinged with rufous, the feathers of the crown largely centred with very dark brown, those of the back with very dark shaft-stripes; upper tail-coverts obsoletely dark-shafted; tail brown, the shafts darker and all the feathers cross-rayed; wings brown, the lesser coverts centred darker; lores grey; cheeks and ear-coverts plain rufescent; chin, throat, and breast the same, with dark shaft-stripes increasing in size from the chin downwards; remainder of lower plumage pale buffy-brown, becoming albescent in the middle of the abdomen.

Iris bright yellow; eyelid plumbeous; bill fleshy yellow, the culmen, nostril, and the tip of both mandibles horn-colour; mouth yellow; legs plumbeous; claws pinkish.

Length about 9·5; tail 4·8; wing 3·5; tarsus 1·3; bill from gape 1·1.

*Distribution.* This Babbler occurs over a considerable portion of Sind from Sehwan down to the Runn of Cutch. It is also found in the Saharunpur district and thence skirts the plains at the base of the Himalayas as far as Béhar, whence it commences to spread over Bengal, extending up the Assam valley, and southwards to Southern Pegu, where it is abundant.

*Habits, &c.* This species is found only in the plains where there are large expanses of heavy grass, and lives in small parties that feed on the ground or climb about in the grass. When one bird flies across the open, the others follow it one by one, skimming near the ground with laboured flight and repeating a monotonous note, which, however, is not unpleasant when heard in the vast lonely plains which this bird frequents. It breeds throughout the rains, or from April to October, or even later, making its nest in a clump of grass and laying three eggs, which measure ·88 by ·7.

### 105. **Argya caudata.** *The Common Babbler.*

Cossyphus caudatus, *Duméril, Drapiez, Dict. Class. d'Hist. Nat.* x, p. 219 (1826).
Malacocercus huttoni, *Blyth, J. A. S. B.* xvi, p. 476 (1847); *id. Ibis,* 1867, p. 6; *Jerd. Ibis,* 1872, p. 310.
Malacocercus caudatus (*Duméril*), *Blyth, Cat.* p. 141; *Horsf. & M. Cat.* i, p. 223.
Chatarrhœa caudata (*Dum.*), *Jerd. B. I.* ii, p. 67; *Hume, N. & E.* p. 274; *Hume & Henders. Lah. to Yark.* p. 197, pl. ix; *Hume, Cat.* no. 438; *Barnes, Birds Bom.* p. 181.
Crateropus huttoni (*Blyth*), *Blanf. Ibis,* 1874, p. 75; *id. S. F.* ii, p. 329; *id. E. Pers.* ii, p. 203, pl. xiii, fig. 1.
Chatorhea eclipes, *Hume, S. F.* v, p. 337 (1877); *id. Cat.* no. 438 ter.
Chatarrhæa huttoni (*Blyth*), *Hume, Cat.* no. 438 bis.
Argya caudata (*Drap.*), *Sharpe, Cat. B. M.* vii, p. 393; *Oates in Hume's N. & E.* 2nd ed. i, p. 70.
Argya eclipes (*Hume*), *Sharpe, t. c.* p. 394.
Argya huttoni (*Blyth*), *Sharpe, t. c.* p. 394.
Crateropus caudatus (*Dum.*), *Oates, B. B.* i, p. 32.

*The Striated Bush-Babbler,* Jerd.; *Dumri,* Hind. in the South; *Huni,* Tam.; *Hedo* and *Lailo,* Sind; *Chilchil,* Hind. in the N. W. P.; *Peng* or *Chota-penga,* Hindi; *Sor* in the N.W.; *Chinna sidu,* Tel.

*Coloration.* Whole upper plumage brown tinged with fulvous, each feather with a dark brown shaft-streak; wing- and tail-coverts with only the shaft dark; quills brown, lighter on the outer webs; tail olive-brown, cross-rayed, and the shafts very dark; chin and throat fulvous white; lores brown; ear-coverts rufescent; lower plumage pale fulvous, albescent on the abdomen, and the sides of the breast faintly striated.

Bill light brown, yellow at base below; legs and feet yellow; claws fleshy brown; iris brown or yellow (*Bingham*); iris red-brown (*Jerdon*).

Length about 9; tail 4·7; wing 3·2; tarsus 1·1; bill from gape 1.

With the large series of these birds now available in the British Museum it is impossible to separate the bird into three races, and it will be seen from Hume's Catalogue that this gentleman no longer thinks it possible to do so.

*Distribution.* Every portion of India proper, from Sind to Bengal and from the foot of the Himalayas to the extreme south of the peninsula as far at least as the base of the Palni hills. This bird also occurs in the Laccadives and in Ramesvaram Island. In the north of India I have been able to trace it no further east than Behar, but it is probably found as far as the longitude of Calcutta. Blyth records it from Arakan and Thayetmyo, but it is probable that he did so by some mistake.

To the west it extends into Persia.

*Habits, &c.* This Babbler is not addicted to grass jungle, but is found in all sorts of country, even in gardens. It associates in small flocks and has the habits of *A. earlii.* It breeds throughout the greater part of the year, constructing its nest in bushes and laying three eggs, which measure ·82 by ·64.

### 106. **Argya gularis.** *The White-throated Babbler.*

Chatorhea gularis, *Blyth, J. A. S. B.* xxiv, p. 478 (1855); *Jerd. Ibis,* 1862, p. 19; *Blanf. Ibis,* 1870, p. 466; *Hume, S. F.* iii, p. 124; *Anders. Yunnan Exped., Aves,* p. 639, pl. xlviii; *Hume, Cat.* no. 439 bis; *Oates, S. F.* x, p. 209.
Crateropus gularis (*Blyth*), *Oates, B. B.* i, p. 31.
Argya gularis (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 396.

*Coloration.* Forehead and a line on either side as far as the eye grey, each feather with a black streak; crown, hind neck, back, and scapulars ruddy brown, the feathers with dark brown shaft-stripes; rump and upper tail-coverts olive-brown, the latter with faint stripes; tail olive-brown, cross-rayed; exposed parts of wings olive-brown, some of the greater coverts indistinctly dark-shafted; ear-coverts and sides of the neck ruddy brown; lores black; chin, throat, cheeks, and upper breast white; remainder of lower plumage ferruginous.

I omitted to note the colour of the soft parts of this bird when in Burma and no one else appears to have recorded them.

Length about 10·5; tail 5·5; wing 3·2; tarsus 1·4; bill from gape 1.

*Distribution.* The valley of the Irrawaddy river from Prome to Bhamo.

*Habits, &c.* This species is very common round Thayetmyo, living in bamboo-jungle and entering compounds and gardens. It associates in small flocks, feeds on the ground, and is as noisy as its congeners.

### 107. **Argya malcolmi.** *The Large Grey Babbler.*

Timalia malcolmi, *Sykes, P. Z. S.* 1832, p. 88.

Garrulus albifrons, *Gray, in Hardw. Ill. Ind. Zool.* ii, pl. 36, fig. 1 (1834).

Malacocercus malcolmi (*Sykes*), *Blyth, Cat.* p. 141; *Horsf. & M. Cat.* i, p. 218; *Jerd. B. I.* ii, p. 64; *id. Ibis,* 1872, p. 310; *Barnes, Birds Bom.* p. 180.

Argya malcolmi (*Sykes*), *Hume, N. & E.* p. 273; *id. Cat.* no. 436; *Sharpe, Cat. B. M.* vii, p. 398; *Davison, S. F.* x, p. 382; *Oates in Hume's N. & E.* 2nd ed. i, p. 72.

*Ghogoi,* Hind.; *Gangai,* Hind. in the N.W. P.; *Gongya,* Can.; *Kokatti,* Mahr.; *Verri-chinda* and *Gowa-sida,* Tel.; *Bhaina,* Lucknow.

*Coloration.* Upper plumage dull brown, the feathers of the mantle with dark centres; forehead bluish grey with fine white shaft-stripes; lores dusky; ear-coverts brown with pale shafts; the three outer pairs of tail-feathers white, the fourth pair with the outer web whitish, and the remainder of the tail pale brown; the central tail-feathers cross-rayed; wings dark brown, the earlier primaries hoary brown on the outer webs, the others edged with the colour of the back; entire lower plumage, cheeks, and sides of neck fulvescent, the throat and breast darker and washed with glaucous.

Iris bright yellow; upper mandible dark brown; lower mandible, legs, and feet fleshy, slightly tinged blue (*Davison*).

Length about 11; tail 5·5; wing 4·6; tarsus 1·2; bill from gape 1.

*Distribution.* A great portion of the peninsula of India. In the north-west this Babbler appears to be rather rare. I have seen specimens collected at Umballa in the Punjab and Sehwan in Sind. At Sámbhar and Abu it commences to be common, as also at Delhi. Its extension to the east is not well indicated by the specimens I have been able to examine, but it appears to be common at Allahabad and it is probably found some distance further east. Southwards it is spread over the whole peninsula as far at least as Mysore and the Nilgiris. It, however, seems to be absent from certain tracts of country, its distribution being, as Jerdon remarks, peculiar.

*Habits, &c.* In the south of India this bird appears to be confined to the jungle, but in the north it is found chiefly in fields and gardens. It is a noisy chattering bird, associating in small flocks and taking refuge in trees when disturbed. It breeds pretty well throughout the year, constructing its nest in low branches of trees and shrubs and laying four eggs, which measure ·99 by ·77.

### 108. **Argya subrufa.** *The Large Rufous Babbler.*

Timalia subrufa, *Jerd. Madr. Journ. L. S.* x, p. 259 (1844).
Malacocercus subrufus (*Jerd.*), *Blyth, Cat.* p. 141; *Horsf. & M. Cat.* i, p. 217.
Layardia subrufa (*Jerd.*), *Jerd. B. I.* ii, p. 66; *Hume, Cat.* no. 437; *Butler, S. F.* ix, p. 401; *Davison, S. F.* x, p. 382; *Barnes, Birds Bom.* p. 181.
Argya subrufa (*Jerd.*), *Sharpe, Cat. B. M.* vii, p. 390; *Oates in Hume's N. & E.* 2nd ed. i, p. 74.
Argya hyperythra, *Sharpe, t. c.* p. 390.

*The Rufous Babbler*, Jerd.; *Jungli-Khyr*, Hind.

*Coloration.* Forehead hoary grey with black shafts; whole upper plumage, tail, and exposed parts of the wings olive-brown with a rufous tinge, especially strong on the outer webs of the quills, on the tail, and on the upper tail-coverts; lores brown; cheeks, sides of head and neck olive-brown tinged with rufous; lower plumage bright rufous, somewhat paler on the abdomen and suffused with brown on the thighs and under tail-coverts; under wing-coverts and edge of wing rufous; tail slightly cross-rayed.

Upper mandible, from gape to nostril, chrome-yellow; rest of upper mandible blackish brown; lower mandible chrome-yellow; iris creamy white or pale yellow; legs and feet dark yellowish fleshy, pale reddish brown, greyish yellow (*Davison*).

Length 10; tail 4·5; wing 3·5; tarsus 1·3; bill from gape 1.

*Argya hyperythra*, a species described by Sharpe in the 'Catalogue,' cannot in my opinion be kept distinct. The two specimens upon which the name was founded are certainly very rufous, but it is only a matter of degree, and I believe that Sharpe himself now doubts the validity of the species.

*Distribution.* The Western Gháts from Coonoor and Kotagiri on the Nilgiris to Khandála near Bombay.

*Habits, &c.* Davison remarks that this bird is quite a *Malacocercus* in habits and voice, but it keeps to much denser cover, being found far away in forests, and the voice is softer and more subdued.

The nest of this bird is of the usual form, made of leaves and bound together by grass and creepers.

### 109. **Argya longirostris.** *The Small Rufous Babbler.*

Pyctorhis longirostris, *Hodgs., Moore, P. Z. S.* 1854, p. 104; *Horsf. & M. Cat.* i, p. 408; *Jerd. B. I.* ii, p. 16; *Hume, Cat.* no. 386; *id. S. F.* ix, p. 250, xi, p. 137.
Malacocercus (Layardia) rubiginosus, *Godwin-Austen, P. Z. S.* 1874, p. 47; *id. J. A. S. B.* xliii, pt. ii, p. 164, pl. v; *Hume, S. F.* iii, p. 397; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, pp. 78, 202; xlvii, pt. ii, p. 24; *Hume, S. F.* vii, p. 153.
Timelia longirostris (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 509.

*The Larger Yellow-eyed Babbler*, Jerd.

*Coloration.* Upper plumage, tail, and exposed parts of the closed wings deep reddish brown; lores, cheeks, chin, and upper throat white; the whole lower plumage and the ear-coverts ferruginous, becoming albescent on the abdomen; tail cross-rayed.

Legs and feet brown, darker on feet; bill black; iris white, bluish white (*Hume*).

Length nearly 10; tail 4·6; wing 3; tarsus 1·2; bill from gape 1.

*Distribution.* The Nepal Terai; the Bhutan and Buxa Doars; Gowhatty; Helem, Darrang district, Assam; Sadiya; Manipur; Cachar.

*Habits, &c.* Godwin-Austen, who very rightly associates this bird with the *Malacocerci*, states that this species is essentially a grass-bird. It goes about in flocks of a dozen or so, flying through the grass one after another in a scattered line, and never abiding long in one place. Hume, who found it to be common in Manipur about the capital and the Logtak lake, says that it occurs about the ditches with their high grass hedgerows. Except, however, in the early mornings, it clings closely to the grass, showing itself but little and not being easy to shoot.

## Genus **CRATEROPUS**, Swains., 1831.

The genus *Crateropus* differs from *Argya* in its shorter tail, which is about equal in length to the wing, and in its stouter bill. The tail is also much less graduated, the outer feathers being about two thirds the entire length of the tail. In habits the two genera are very similar, as also in their mode of nidification and the colour of the egg.

### *Key to the Species.*

*a*. Throat cinereous mottled with pale brown; breast fulvous ashy .................... *C. canorus*, p. 110.
*b*. Throat and breast dark brown or black with ashy margins.
  *a'*. Tail ashy and brown; primaries edged paler.
    *a''*. Ear-coverts blackish, strikingly different to the rest of the head .............. *C. griseus*, p. 112.
    *b''*. Ear-coverts of the same colour as the rest of the head .................... *C. striatus*, p. 112.
  *b'*. Tail rufous; primaries without paler edges.
    *c''*. Throat and breast mottled with brown.. *C. somervillii*, p. 113.
    *d''*. Throat and breast uniformly rufous.... *C. rufescens*, p. 114.
*c*. Throat faint rufous, breast dark rufous ...... *C. cinereifrons*, p. 114.

### 110. **Crateropus canorus.** *The Jungle Babbler.*

Turdus canorus, *Linn. Syst. Nat.* i, p. 293 (1766).
Pastor terricolor, *Hodgs. J. A. S. B.* v, p. 771 (1836).
Malacocercus bengalensis, *Blyth, Cat.* p. 140 (1849).
Malacocercus canorus (*L.*), *Horsf. & M. Cat.* i, p. 220.
Malacocercus orientalis, *Jerd. Ill. Ind. Orn.* text to pl. 19 (1847).
Malacocercus malabaricus, *Jerd. Ill. Ind. Orn.* text to pl. 19 (1847); *id. B. I.* ii, p. 62; *Hume, N. & E.* p. 272; *id. Cat,* no. 434; *Davison, S. F.* x, p. 381; *Barnes, Birds Bom.* p. 180.

Malacocercus terricolor (*Hodgs.*), *Jerd. B. I.* ii, p. 59; *Hume, N. & E.* p. 269; *id. S. F.* i, p. 180; *Cripps, S. F.* vii, p. 278; *Hume, Cat.* no. 432; *Barnes, Birds Bom.* p. 179; *Hume, S. F.* xi, p. 174.

Crateropus canorus (*Linn.*), *Sharpe, Cat. B. M.* vii, p. 478; *Oates in Hume's N. & E.* 2nd ed. i, p. 74.

*The Bengal Babbler*, Jerd.; *The Jungle Babbler*, Jerd.; *Chatarhia*, Beng.; *Pengya-maina*, Hind. in the Upper Provs.; *Sat bhai, Jangli-khyr, Ghonghai*, Hind.; *Pedda sida*, Tel.

*Coloration.* Upper plumage, coverts, and tertiaries pale brown, cinereous on the head and rump, slightly fulvous on the upper tail-coverts, the back with dark brown streaks and whitish shaft-stripes; tail brown, paler near the base and darker towards the end, which is tipped white and cross-rayed; wings dark brown, edged with ashy on the outer webs; lores whitish with a narrow black line above them; sides of the head like the crown; chin and throat cinereous, faintly cross-barred darker; breast fulvous ashy with whitish shafts; abdomen, vent, and under tail-coverts fulvous, the sides tinged with brown, and with faint-white shafts.

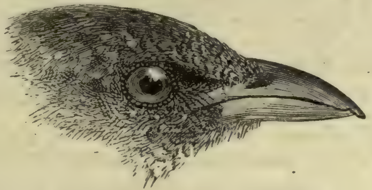

Fig. 30.—Head of *C. canorus.*

Iris yellowish white; orbital skin pale yellow; legs and claws fleshy yellow (*Cripps*).

Length about 10; tail 4·3; wing 4·2; tarsus 1·3; bill from gape 1·2.

It is impossible for any description to cover all the changes of colour which this bird undergoes throughout the year from the fresh moult to the time when the feathers get worn down. The chief point to note about this species is that the chin and throat are pale with no bars or marks of black or dark brown, as in the others. After carefully examining a very large series of this Babbler from every part of India that it inhabits, I am unable to find that there is more than one species or even race. Jerdon recognized two species and he differentiated them precisely by those characters which are continually varying according as the plumage is fresh or old. He states also that the bill of *C. terricolor*, the northern race, is horny brown, but I find that this colour is the exception. Hume notes on the label of a Punjab bird that the bill was fleshy white, and of a Mount-Abu bird that it was whitish, and Bingham in the same way states that a Delhi bird had it yellowish white.

*Distribution.* The whole of India from Sind to the extreme east of Assam, and from the Himalayas down to the extreme south of the peninsula. This bird appears to ascend the hills to about 5000 feet of elevation or probably higher in the south.

*Habits, &c.* Has much the habits of *Argya*, but is arboreal, not confining itself to any particular sort of jungle. It is very noisy and goes about in flocks. Breeds from March to July and in the south of India even in the dry weather up to December. The nest is placed in thick low trees or in bushes or hedges, and the eggs, generally three in number, measure 1·01 by ·78. One or more species of Cuckoos select the nest of this bird in which to deposit their eggs.

### 111. **Crateropus griseus.** *The White-headed Babbler.*

Turdus griseus, *Gm. Syst. Nat.* i, p. 824 (1788).
Malacocercus griseus (*Gm.*), *Jerd. Ill. Ind. Orn.* pl. 19; *Blyth, Cat.* p. 141; *Horsf. & M. Cat.* i, p. 220; *Jerd. B. I.* ii, p. 60; *id. Ibis,* 1872, p. 307; *Hume, N. & E.* p. 271; *id. Cat.* no 433; *Davison, S. F.* x, p. 381; *Barnes, Birds Bom.* p. 179.
Crateropus griseus (*Gm.*), *Sharpe, Cat. B. M.* vii, p. 480; *Oates in Hume's N. & E.* 2nd ed. i, p. 78.

*Khyr,* Hind.; *Chinda* or *Sida,* Tel.; *Kalli-Kuravi,* Tam.

*Coloration.* Forehead, crown, nape, lores, and round the eye dingy greyish white, sometimes extending over the hind neck; upper plumage ashy brown, the feathers of the back with white shaft-stripes and a black streak on both webs; quills black, narrowly edged on the outer webs with ashy; tail ashy brown on the basal half and dark brown on the terminal half, which is tipped with whitish; tail and tertiaries cross-rayed with blackish; cheeks and ear-coverts dark brown; chin, throat, and breast black, with ashy margins to the feathers; middle of abdomen fulvous; remainder of lower plumage brown.

Legs, feet, claws, bill, and orbital skin dead white, slightly tinged with yellow; iris creamy white (*Davison*).

Length about 9; tail 4; wing 4; tarsus 1·3; bill from gape ·9.

This species is a fairly well marked one, being recognizable by its whitish head and dark ear-coverts.

*Distribution.* Southern India from the extreme south up to about a line drawn from Ellore through Secunderabad to Belgaum.

*Habits, &c.* Breeds apparently throughout the year, constructing a nest of grass-stems and roots in trees and bushes, not far off the ground. The eggs measure ·95 by ·68.

### 112. **Crateropus striatus.** *The Southern-Indian Babbler.*

Malacocercus striatus, *Swains. Zool. Ill.* new series, pl. 127 (1831); *Jerd. B. I.* ii, p. 59; *Blyth, Ibis,* 1867, p. 300; *Holdsw. P. Z. S.* 1872, p. 449; *Hume, S. F.* iv, p. 458, vii, p. 385; *id. Cat.* no. 432 bis; *Legge, Birds Ceyl.* p. 494; *Parker, S. F.* ix, p. 479.
Crateropus striatus (*Sw.*), *Sharpe, Cat. B. M.* vii, p. 481; *Oates in Hume's N. & E.* 2nd ed. i, p. 79.

*Demelitcha,* Ceyl.; *Punil,* Tam.

*Coloration.* Upper plumage and sides of head and neck brown, the feathers of the head edged with cinereous, those of the back with large whitish shaft-streaks, and a dark streak on each web; quills dark brown, edged with ashy on the outer webs; upper tail-coverts tinged with rufous; tail dark brown, paler at base, cross-rayed; chin, throat, and breast very dark brown, sometimes almost black, with broad ashy edges; remainder of lower plumage dark fulvous, the sides of the body tinged with brown.

Legs, feet, claws, bill and orbital skin dirty fleshy white; upper mandible and claws tinged pale brown; iris clear white (*Davison*).

Length about 10; tail 4; wing 4·2; tarsus 1·3; bill from gape 1.

This species closely resembles *C. canorus*, from which it differs chiefly in the dark colour of the throat and breast.

*Distribution.* Ceylon, Ramesvaram, and part of Southern India. There are many specimens of this bird in the British Museum, collected at Coonoor and Ootacamund, on the Nilgiris, quite inseparable from Ceylon birds.

*Habits, &c.* Breeds in Ceylon from March to July, building its nest in bushes and laying two or three eggs, which measure ·96 by ·72.

### 113. **Crateropus somervillii.** *The Rufous-tailed Babbler.*

Timalia somervillei, *Sykes, P. Z. S.* 1832, p. 88.

Malacocircus somervillei (*Sykes*), *Horsf. & M. Cat.* i, p. 219; *Jerd. B. I.* ii, p. 63; *Blyth, Ibis,* 1867, p. 6; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 177; *Hume, N. & E.* p. 272; *Fairbank, S. F.* iv, p. 258; *Hume, Cat.* no. 435; *Vidal, S. F.* ix, p. 64; *Barnes, Birds Bom.* p. 180.

Malacocercus sykesii, *Jerd. B. I.* ii, p. 63 (1863).

Crateropus somervillii (*Sykes*), *Sharpe, Cat. B. M.* vii, p. 482.

*Coloration.* Forehead, crown, and nape dark brown, the feathers with narrow pale edges; lores white; sides of the head and neck, back, wing-coverts, and tertiaries paler brown tinged with rufous, the feathers of the back with white shafts; rump and upper tail-feathers ferruginous; tail reddish brown; both tail and tertiaries cross-rayed with blackish; primaries and secondaries black; chin and throat dark brown, each feather with a broad ashy margin; breast brown with broad white shaft-streaks; abdomen, vent, and under tail-coverts deep ferruginous; tail tipped paler below.

Bill greyish white; iris yellowish white; orbits yellow; feet and claws fleshy yellow (*Hume Coll.*).

Length about 10; tail 4; wing 4; tarsus 1·3; bill from gape 1·1.

This species is the best defined of the genus and can be easily identified by its rufous tail and deep ferruginous lower parts. A specimen procured by Hume at Kollachal in the extreme south of Travancore is remarkable for a number of rufous patches on the neck and back.

*Distribution.* The Western Ghâts and the country lying between them and the sea from Goa to a short distance north of the latitude of Bombay. This Babbler occurs on Bombay Island. A specimen, as mentioned above, procured at Kollachal in Travancore, is referable to this species.

*Habits, &c.* In the island of Bombay this bird breeds on the date-palms growing on the hills of the east and west shores, but the nest has not been described. Near Khandála Mr. E. Aitken found a nest at the end of May with three much-incubated eggs of an intense greenish-blue colour.

### 114. **Crateropus rufescens.** *The Ceylonese Babbler.*

Malacocercus rufescens, *Blyth, J. A. S. B.* xvi, p. 453 (1847); *id. Cat.* p. 141; *Legge, Birds Ceyl.* p. 497, pl. xxi, fig. 2.
Layardia rufescens (*Blyth*), *Blyth, Ibis,* 1867, p. 300; *Legge, S. F.* iii, p. 368; *Hume, S. F.* vii, p. 386; *id. Cat.* no. 437 bis.
Crateropus rufescens (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 81.

*Coloration.* Whole upper plumage, ear-coverts, tail, and exposed parts of wings rufous-brown; lower plumage from the chin downwards ferruginous, becoming browner on the flanks, vent, and under tail-coverts; tail indistinctly cross-rayed.

Iris white, yellowish white, or greenish white; bill orange-yellow, deepest on the basal half; legs and feet dull chrome-yellow; claws yellowish horn; orbital skin and eyelid pale greenish yellow (*Legge*).

Length about 10; tail 4·6; wing 4; tarsus 1·3; bill from gape 1.

*Distribution.* The island of Ceylon, throughout the damper portions.

*Habits, &c.* Appears to breed in May, and in one instance the nest was placed among some creepers growing up a tree. The eggs measure ·94 by ·74.

### 115. **Crateropus cinereifrons.** *The Ashy-headed Babbler.*

Garrulax cinereifrons, *Blyth, J. A. S. B.* xx, p. 176 (1851); *id. Ibis,* 1867, p. 300; *Holdsw. P. Z. S.* 1872, p. 448; *Legge, Ibis,* 1874, p. 20; *id. Birds Ceyl.* p. 499, pl. xxii, fig. 2; *Hume, S. F.* vii, p. 384; *id. Cat.* no. 409 bis; *Sharpe, Cat. B. M.* vii, p. 447.
Crateropus cinereifrons (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 81.

*Coloration.* Forehead, crown, and sides of the head cinereous, shading off on the nape into the bright reddish brown which is the colour of the whole upper plumage, tail, and visible portions of the wings, except the outer webs of the first few primaries, which are paler; chin whitish; remainder of lower plumage rufous-brown, darker on the sides of the body and on the under tail-coverts.

Iris white; eyelid plumbeous; bill black; inside of mouth greenish yellow; legs and feet plumbeous brown; claws dusky horny (*Legge*).

Length nearly 10; tail 4·3; wing 4·5; tarsus 1·5; bill from gape 1·2.

*Distribution.* Ceylon, where it occurs in the humid parts up to 3500 feet of elevation.

*Habits, &c.* This bird is a true *Crateropus* in the structure of the feathers of the head and in its general conformation. According to Legge it is found in gloom and shade in the dampest forests in troops of ten to twenty, and it is very noisy.

## Genus **POMATORHINUS**, Horsf., 1821.

The genus *Pomatorhinus* contains a large number of birds which form a very natural group. Seventeen species inhabit the Empire.

In this genus the bill is quite as long as the head and frequently much longer; it is very slender, much curved downwards and compressed. The feathers of the forehead are short, rounded, and close, as in the last two genera, but feathers do not grow on the nasal membrane, which is perfectly bare. The tail is longer than the wing and considerably graduated, the outer feather being two thirds to three quarters the length of the tail. The feathers of the crown are lengthened, and when erected, at such times as the bird is excited, form a short crest.

All the species lay white unspotted eggs and their nests are constructed on or very near the ground. They are noisy birds, but their notes are extremely pleasant. They are sociable and have much the same habits as the Laughing-Thrushes.

### *Key to the Species.*

- *a.* With a white supercilium.
  - $a'$. Bill short and deep, about length of head.
    - $a''$. Breast and upper abdomen white like throat.
      - $a'''$. Sides of neck chestnut, quite different to upper plumage.
        - $a^4$. Chestnut of neck produced down side of breast and abdomen as a band.
          - $a^5$. This band streaked with white. *P. schisticeps*, p. 116.
          - $b^5$. This band not streaked ........ *P. nuchalis*, p. 117.
        - $b^4$. Chestnut confined to side of neck. *P. olivaceus*, p. 118.
      - $b'''$. Sides of neck rufescent, matching upper plumage .................. *P. melanurus*, p. 118.
      - $c'''$. Sides of neck black or brown.
        - $c^4$. Sides of neck and breast deep black. *P. horsfieldii*, p. 119.
        - $d^4$. Sides of neck and breast brown, nearly concolorous with upper plumage .................... *P. obscurus*, p. 120.

*b''*. Throat white and breast ferruginous.
  *d'''*. Crown of head black ............ *P. ferruginosus*, p. 120.
  *e'''*. Crown of head of same colour as upper plumage.
    $e^4$. Breast pale ferruginous.......... *P. albigularis*, p. 121.
    $f^4$. Breast bright ferruginous ........ *P. phayrii*, p. 121.
*c''*. Throat white and breast striped with olive-brown ...................... *P. ruficollis*, p. 122.
*b'*. Bill long, slender, much compressed, about half as long again as head.
  *d''*. Throat and breast white.
    *f'''*. Upper plumage bright ochraceous.. *P. ochraceiceps*, p. 123.
    *g'''*. Upper plumage olive-brown ...... *P. austeni*, p. 123.
  *e''*. Throat white, breast pale ochraceous.. *P. stenorhynchus*, p. 124.
*b*. With no white supercilium.
  *c'*. Bill short, not longer than head.
    *f''*. Sides of neck and body chestnut...... *P. erythrogenys*, p. 124.
    *g''*. Sides of neck and body olive-brown .. *P. macclellandi*, p. 125.
  *d'*. Bill long and coarse, longer than head; sides of breast deep slaty grey.
    *h''*. Sides of head not streaked with white. *P. hypoleucus*, p. 126.
    *i''*. Sides of head streaked with white .... *P. tickelli*, p. 127.

The first ten species are characterized by a shorter bill (fig. 31).

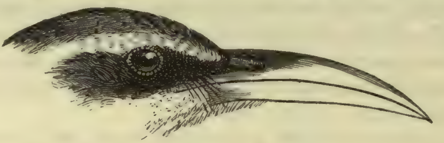

Fig. 31.—Head of *P. schisticeps*.

### 116. **Pomatorhinus schisticeps.** *The Slaty-headed Scimitar Babbler.*

Pomatorhinus schisticeps, *Hodgs. As. Res.* xix, p. 181 (1836); *Blyth, Cat.* p. 146; *Horsf. & M. Cat.* i, p. 234; *Jerd. B. I.* ii, p. 29; *Hume, N. & E.* p. 250; *Wardlaw Ramsay, Ibis*, 1878, p. 132, pl. iii; *Hume, Cat.* no. 402; *Scully, S. F.* viii, p. 288; *Hume, S. F.* ix, p. 251; *Oates, B. B.* i. p. 72; *Sharpe, Cat. B. M.* vii, p. 411; *Hume, S. F.* xi, p. 148; *Oates in Hume's N. & E.* 2nd ed. i, p. 81.
Pomatorhinus leucogaster, *Gould, P. Z. S.* 1837, p. 137; *Blyth, Cat.* p. 146; *Jerd. B. I.* ii, p. 30; *Hume, Cat.* no. 403.
Pomatorhinus pinwilli, *Sharpe, Cat. B. M.* vii, p. 413 (1883).

*The Slaty-headed Scimitar Babbler*, *Gould's Scimitar Babbler*, Jerd.; *Pabdoa*, Beng.; *Phoyeum-pho* or *Pharreeum-pho*, Lepch.; *Bhiakuroh* of the Parbuttiahs.

*Coloration.* Forehead, crown, and nape dark slate-colour, the shafts darker; upper plumage and wing-coverts rufescent olive-brown; a very distinct supercilium, reaching from the nostrils to the nape, white; lores and ear-coverts black; chin, throat, cheeks, breast, and abdomen white; a large patch on the side of the neck produced down the sides of the breast and abdomen chestnut; the portion below the neck streaked with white; sides of the body, vent, and under tail-coverts dusky olive-brown.

The colour of the crown varies much, being frequently the same colour as the back or very little darker. An indistinct rufous collar is sometimes present on the hind neck in birds from Assam and Tipperah.

Bill horny yellow; the base of the upper mandible dusky; iris reddish cream-colour; feet plumbeous, the soles yellowish; claws livid horny (*Scully*).

Length about 10; tail 4·5; wing 4; tarsus 1·3; bill from gape 1·2.

On examining the large series of this bird in the British Museum which has become available since Sharpe wrote his Catalogue of this family, it seems quite impossible to recognize *P. pinwilli* as a species or even as a race, all the characters pointed out as belonging to it being shared by others throughout the Himalayas to Assam. Simla birds are no doubt small, but the size increases gradually, ranging, as regards the length of wing, from 3·6 at Simla to 4·4 in Arrakan.

*Distribution.* Throughout the Himalayas from Simla to Sadiya, and through the hill-tracts of Eastern Bengal, Tipperah, Cachar, and Manipur to Arrakan.

*Habits, &c.* Breeds in Sikhim from April to June, constructing a cup-like nest of grass and leaves on or near the ground in brushwood and thick grass. The eggs, usually four in number, measure 1 by ·73.

### 117. **Pomatorhinus nuchalis.** *The Tweeddale Scimitar Babbler.*

Pomatorhinus schisticeps, *Hodgs. apud Hume, S. F.* iii, p. 121.
Pomatorhinus leucogaster, *Gould, apud Blyth & Wald. Birds Burm.* p. 113; *Wardlaw Ramsay, Ibis,* 1877, p. 465; *Hume & Dav. S. F.* vi, p. 282.
Pomatorhinus nuchalis, *Tweedd. A. M. N. H.* (4) xx, p. 535 (1877); *Hume & Dav. S. F.* vi. p. 284; *Wardlaw Ramsay, Ibis,* 1878, p. 134; *Hume, Cat.* no. 403 ter; *id. S. F.* ix, p. 251; *Oates, B. B.* i, p. 71; *Sharpe, Cat. B. M.* vii, p. 413.

*Coloration.* Resembles *P. schisticeps.* Differs in not having any white streaks on the sides of the breast and abdomen, and in having the culmen black only in the immediate vicinity of the nostrils and not, as in *P. schisticeps,* over the basal half.

In this species the rufous collar on the hind neck is generally well indicated.

Bill orange-yellow; the base of the lower mandible and the gape dusky; inside of mouth flesh-colour; iris pale yellow; eyelid and ocular region pale lavender; legs dusky plumbeous; claws horny brown.

Length about 9; tail 3·9; wing 3·5; tarsus 1·2; bill from gape 1·2.

*Distribution.* I have examined specimens from Thayetmyo, the Karen hills east of Toungngoo, Karennee, the pine-forests of the Salween river, Pahpoon, and the Yonzalin river.

### 118. **Pomatorhinus olivaceus.** *The Tenasserim Scimitar Babbler.*

Pomatorhinus olivaceus, *Blyth, J. A. S. B.* xvi, p. 451 (1847); *Hume, S. F.* v, p. 137; *Davison, S. F.* v, p. 458; *Hume & Dav. S. F.* vi, p. 283; *Wardlaw Ramsay, Ibis,* 1878, p. 133; *Hume, Cat.* no. 403 bis; *id. S. F.* ix, p. 117; *Bingham, S. F.* ix, p. 180; *Oates, B. B.* i, p. 70; *Sharpe, Cat. B. M.* vii, p. 414; *Oates in Hume's N. & E.* 2nd ed. i, p. 82.

*Coloration.* Resembles *P. schisticeps.* Differs in wanting the chestnut band down the sides of the breast and abdomen, the chestnut being confined to the neck-patch, and in having the bill black only in the immediate vicinity of the nostrils.

As in *P. nuchalis* the rufous collar on the hind neck is generally distinctly indicated.

Iris bright yellow; bill deep yellow, dusky green at base above; legs and feet plumbeous; claws horny (*Hume & Davison*).

Length about 9; tail 4·1; wing 3·6; tarsus 1·2; bill from gape 1·2.

*Distribution.* Tenasserim, from Moulmein down to its extreme southern point and thence extending into the Malay peninsula.

*Habits, &c.* Both Davison and Bingham found the nest of this species in Tenasserim, the former in January, the latter in March. The nest found by Davison was globular with the entrance at the side, the one found by Bingham was cup-shaped; both were on the ground in thick jungle. The eggs in both cases were three in number, and measured on the average 1 by ·73.

### 119. **Pomatorhinus melanurus.** *The Ceylonese Scimitar Babbler.*

Pomatorhinus melanurus, *Blyth, J. A. S. B.* xvi, p. 451 (1847); *id. Cat.* p. 146; *Hume, S. F.* i, p. 437; *Legge, S. F.* iv, p. 245; *Whyte, S. F.* v, p. 202; *Wardlaw Ramsay, Ibis,* 1878, p. 132; *Hume, S. F.* vii, p. 383; *id. Cat.* no. 404 bis; *Legge, Birds Ceyl.* p. 501; *Sharpe, Cat. B. M.* vii, p. 414; *Oates in Hume's N. & E.* 2nd ed. i, p. 83.

*Coloration.* Forehead, lores, ear-coverts, and beneath the eye black; a white supercilium from the nostrils to the nape bordered above by dark brown or black; crown and nape rufescent brown; upper plumage, sides of neck and body, vent, and under tail-coverts rufous-brown; chin, throat, breast, and abdomen pure white; tail blackish, washed with ferruginous near the base.

Iris brownish red, dull red, or reddish brown; orbital skin and eyelid dull blue; bill gamboge-yellow, more or less blackish from the forehead to a short distance in front of the nostril; legs and feet plumbeous or greenish plumbeous, feet generally more bluish than tarsi; claws dusky, pale horn at base (*Legge*).

Length about 8·5; tail 3·6; wing 3·5; tarsus 1·2; bill from gape 1·2.

The ear-coverts are occasionally streaked with white and the edges of the breast and sides of neck are also streaked with the same. The head and upper plumage vary a good deal in depth of colour, the crown being occasionally a very dark brown or blackish, but after examining a very large series I am of opinion that all the Ceylon birds are of one species.

This bird has the same general character of plumage as the three preceding ones, but it differs in not having any chestnut on the side of the neck, the sides of the neck as well as the edges of the breast being of the same rufous-brown as the upper plumage.

*Distribution.* Confined to Ceylon.

*Habits, &c.* Breeds from December to February, constructing a nest made of leaves and grass on a bank in jungle. The eggs measure ·97 by ·7.

### 120. **Pomatorhinus horsfieldii.** *The Southern Scimitar Babbler.*

Pomatorhinus horsfieldii, *Sykes, P. Z. S.* 1832, p. 89; *Blyth, Cat.* p. 146; *Horsf. & M. Cat.* i, p. 234; *Jerd. B. I.* ii, p. 31; *Hume, N. & E.* p. 250; *Morgan, Ibis,* 1875, p. 320; *Wardlaw Ramsay, Ibis,* 1878, p. 136; *Hume, Cat.* no. 404; *Davison, S. F.* x, p. 376; *Sharpe, Cat. B. M.* vii, p. 415; *Barnes, Birds Bom.* p. 178; *Oates in Hume's N. & E.* 2nd ed. i, p. 84.

*Namala-pitta* or *Dasari-pitta,* Tel.

*Coloration.* The upper plumage dark olive-brown with a tinge of rufous, the head darker and frequently mottled with black; a white supercilium from the nostril to the nape, edged with black above; chin, throat, breast, and the centre of the abdomen white; lores, under the eye, the ear-coverts, the sides of the neck, and a band bordering the breast and abdomen black; sides of the body, vent, and under tail-coverts slaty brown; tail and wings dark brown, washed on the outer webs with the colour of the back.

Iris dark maroon-brown; legs and feet greenish plumbeous; bill yellow, dusky at base of the lower mandible (*Butler*); iris crimson (*Davison*).

Length about 10; tail 4; wing 4; tarsus 1·3; bill from gape 1·2.

*Distribution.* Travancore, the Palni hills, the Nilgiris, Coorg, and the hill-ranges of the western coast as far as Mahableshwar, the most northern locality from which I have seen a specimen. This bird is found up to 8000 feet. It, however, occurs at lower levels, being found at Belgaum and even at Malwan on the sea-coast.

Blyth records this species from Cuttack and Ball from Orissa south of the Mahanadi, and Goomsur. Jerdon states that it is found in the Eastern Ghâts and in the heavy jungles of Central India.

*Habits, &c.* Breeds from December to May, constructing a globular nest of grass and leaves on the ground among the roots of bushes or on the side of a bank, laying from three to five eggs which measure 1·08 by ·77.

### 121. **Pomatorhinus obscurus.** *Hume's Scimitar Babbler.*

Pomatorhinus obscurus, *Hume, S. F.* i, p. 7 (1873); *Butler, S. F.* iii, p. 471; *Wardlaw Ramsay, Ibis,* 1878, p. 137; *Hume, Cat.* no. 404 ter; *Sharpe, Cat. B. M.* vii, p. 416; *Barnes, Birds Bom.* p. 178.

*Coloration.* Resembles *P. horsfieldii.* Differs in being everywhere of a much paler colour, a sort of earthy brown, with the sides of the head slightly darker than the other parts, and in being without the black band which in the other species borders the white breast and abdomen.

Legs and feet greenish plumbeous; iris dark red; bill dirty yellow, black at base above (*Hume*).

Length about 10; tail 4·1; wing 4; tarsus 1·3; bill from gape 1·2.

From the examination of a large series of specimens of both species in the British Museum it is quite certain that *P. obscurus* is not a larger bird than *P. horsfieldii*, as was asserted by Hume when he described the former species. The bill of *P. obscurus* is perhaps the larger of the two if an average is taken, but it is by no means a feature to be depended on. The chief point to rely on in discriminating this bird is the absence of the black border to the white of the lower parts.

*Distribution.* I have examined specimens of this species from Khandála, Matheran, Bombay, Khandesh, Abu, and Seoni. At Abu it is found only on the mount and not in the plains, and its true home appears to be the Vindhya and Satpura ranges as far east as Seoni.

*Habits, &c.* Butler remarks that this species, unlike *P. horsfieldii*, is not gregarious, but occurs singly or in pairs. The notes of the two species appear to be alike.

### 122. **Pomatorhinus ferruginosus.** *The Coral-billed Scimitar Babbler.*

Pomatorhinus ferruginosus, *Blyth, J. A. S. B.* xiv, p. 597 (1845); *id. Cat.* p. 146; *Horsf. & M. Cat.* i, p. 236; *Jerd. B. I.* ii, p. 29; *Hume, N. & E.* p. 249; *Wardlaw Ramsay, Ibis,* 1878, p. 134, pl. iv, fig. 1; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 75; *Hume, Cat.* no. 401; *Scully, S. F.* viii, p. 288; *Sharpe, Cat. B. M.* vii, p. 422; *Hume, S. F.* xi, p. 146; *Oates in Hume's N. & E.* 2nd ed. i, p. 86.

Pomatorhinus rubiginosus, *Blyth, J. A. S. B.* xxiv, p. 273 (1855).

*Piong-Kohut* or *Poniong-hut,* Lepch.; *Bhotetet,* Bhut.; *Pot-gongor,* Daphla.

*Coloration.* The feathers of the forehead rufous and lengthened; crown, nape, lores, under the eye, the ear-coverts, and a patch behind them black; a distinct supercilium to the nape, the chin and the cheeks, as far back as the ear-coverts, white; the upper plumage, the tail, and the visible portion of the closed wings olive-brown, tinged with rufous; chin and throat white; breast and centre of upper abdomen bright ferruginous; remainder of lower parts olive-brown.

Bill coral-red; legs greenish brown; iris red-brown (*Jerdon*); iris pale greenish yellow (*Godw.-Austen*).

Length about 9; tail 4·3; wing 3·6; tarsus 1·2; bill from gape 1·3.

*Distribution.* The Himalayas, from Nepal to Assam, where it was procured by Godwin-Austen in the Daphla and in the Eastern Nága hills.

*Habits, &c.* Breeds in Sikhim in May, constructing an egg- or cone-shaped nest of grass, leaves, and fibres on the ground or low down in a bamboo-clump. In a nest found by Gammie there were four eggs, which measured 1·08 by ·8.

### 123. **Pomatorhinus albigularis.** *Blyth's Scimitar Babbler.*

Pomatorhinus albogularis, *Blyth, J. A. S. B.* xxiv, p. 274 (1855); *id. Birds Burm.* p. 113; *Wardlaw Ramsay, Ibis,* 1878, p. 135, pl. v, fig. 1; *Hume & Dav. S. F.* vi, pp. 281, 514; *Hume, Cat.* no. 401 quat.; *Oates, B. B.* i, p. 74; *Sharpe, Cat. B. M.* vii, p. 423.

Pomatorhinus mariæ, *Wald. A. M. N. H.* (4), xv, p. 403 (1875); *Wald. in Blyth's Birds Burm.* p. 113; *Hume, S. F.* iii, p. 404; v, p. 136.

*Coloration.* Upper plumage, the tail, and the exposed parts of the closed wings uniformly olive-brown tinged with rufous, the head slightly darker as a rule; a distinct supercilium from the nostrils to the nape, rufous near the bill and white elsewhere, bordered above by a distinct black band extending to the forehead; lores, under the eye, the ear-coverts, and a continuation of them down the sides of the neck black; chin and throat white; cheeks and lower plumage pale ferruginous, the sides of the body, vent, and under tail-coverts olive-brown.

Legs and feet pale greenish brown, sometimes a dingy brownish green; bill vermilion-red; iris creamy white (*Hume & Davison*).

Length about 10; tail 4·2; wing 3·8; tarsus 1·4; bill from gape 1·1.

*Distribution.* The Toungngoo and Karen hills; the neighbourhood of Muleyit and Nwalabo mountains in Tenasserim, extending down to Tavoy. This bird is found at all elevations up to 6000 feet.

### 124. **Pomatorhinus phayrii.** *Phayre's Scimitar Babbler.*

Pomatorhinus phayrii, *Blyth, J. A. S. B.* xvi, p. 452 (1847); *id. Cat.* p. 146; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 103; *Jerd. Ibis,* 1872, p. 301; *Blyth, Birds Burm.* p. 113; *Wardlaw Ramsay, Ibis,* 1878, p. 135, pl. iv, fig. 2; *Hume & Dav. S. F.* vi, p. 279; *Hume, Cat.* no. 401 bis; *Oates, B. B.* i, p. 73; *Sharpe, Cat. B. M.* vii, p. 422; *Hume, S. F.* xi, p. 147.

*Coloration.* Resembles *P. albigularis.* Differs in having the upper plumage of a greenish tint with no trace of rufous, in the black border over the supercilium being very narrow and in some cases almost obsolete, and in the lower plumage being of a much deeper ferruginous.

Bill coral-red; iris lemon-yellow; legs brown with a tinge of greenish (*Cockburn*); iris yellowish white (*Hume*); iris pale yellow (*Godw.-Austen*).

Length about 9·5; tail 4; wing 3·5; tarsus 1·3; bill from gape 1·2.

*Distribution.* Moflong, Assam; Shillong and Cherra Poonjee; Nága hills; Manipur; Arrakan.

### 125. **Pomatorhinus ruficollis.** *The Rufous-necked Scimitar Babbler.*

Pomatorhinus ruficollis, *Hodgs. As. Res.* xix, p. 182 (1836); *Blyth, Cat.* p. 147; *Horsf. & M. Cat.* i, p. 236; *Jerd. B. I.* ii, p. 29; *Hume, N. & E.* p. 249; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 160; xlv, pt. ii, p. 75; *Wardlaw Ramsay, Ibis,* 1878, p. 138; *Hume, Cat.* no. 400; *Scully, S. F.* viii, p. 287; *Sharpe, Cat. B. M.* vii, p. 426; *Hume, S. F.* xi, p. 146; *Oates in Hume's N. & E.* 2nd ed. i, p. 87.

Pomatorhinus stridulus, *Swinh. Ibis,* 1861, p. 265.

*Moh-mera,* Angami Nága; *Bhiakuroh* of the Parbuttiahs.

*Coloration.* Upper plumage, tail, and visible portions of closed wings rufescent olive-brown; a broad white supercilium from the nostrils to the nape; lores, under the eye, and the ear-coverts black; sides of the neck bright ferruginous, this colour frequently passing round the hind neck and forming a collar; chin, throat, and cheeks white; lower throat, breast, and centre of abdomen white, streaked with olive-brown; sides of the abdomen and breast, the vent, and the under tail-coverts plain olive-brown.

In some birds the streaks on the breast are rufous, and this is especially the case in specimens from China; also, but in a less degree, in specimens from the Himalayas. Young nestlings have the whole breast rusty.

Bill horny yellow, paler at the tip, and the base of the maxilla and basal three fourths of culmen brownish black; iris varies from pale red to crimson; eyelid plumbeous; feet grey or greenish plumbeous; claws brownish horny (*Scully*).

Length about 7·5; tail 3·5; wing 3·1; tarsus 1·1; bill from gape ·9 to 1·2.

*Distribution.* The Himalayas from Nepal to Assam (where Godwin-Austen obtained it in the Daphla and Nága hills); Shillong; Manipur. This species also occurs in China.

*Habits, &c.* Breeds in April and May, constructing a domed nest of grass, fern, and bamboo-leaves on the ground and laying five eggs, which measure ·95 by ·68.

The next three species are very closely allied, but may be known by their longer, very slender, and more curved bill (fig. 32).

**126. Pomatorhinus ochraceiceps.** *Lloyd's Scimitar Babbler.*

Pomatorhinus ochraceiceps, *Wald. A. M. N. H.* (4) xii, p. 487 (1873); *Wald. in Blyth's Birds Burm.* p. 113; *Hume, S. F.* iii, p. 282; *Wardlaw Ramsay, Ibis*, 1877, p. 465, pl. xiii, 1878, p. 136; *Hume & Dav. S. F.* vi, p. 281; *Hume, Cat.* no. 401 ter; *Oates, B. B.* i, p. 73; *Sharpe, Cat. B. M.* vii, p. 417.

*Coloration.* Upper plumage bright ochraceous, the inner webs of the quills pale brown; tail paler ochraceous, the terminal halves of the feathers suffused with brown; feathers at the base of the upper mandible and the lores black; a narrow supercilium extending to the nape, white; ear-coverts rich hair-brown; chin, throat, breast, and centre of abdomen pure white; sides of the abdomen, vent, and under tail-coverts ochraceous.

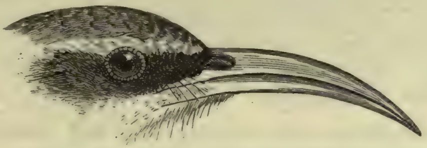

Fig. 32.—Head of *P. ochraceiceps.*

Legs, feet, and claws pale dingy green or greenish brown; bill bright vermilion-red; shelf of nostrils black; the iris much varied, being pale greyish brown, very pale yellowish red, light indian-red, and pinkish yellow (*Hume & Davison*); iris pale straw-yellow (*Wardlaw Ramsay*).

Length nearly 10; tail 4·3; wing 3·6; tarsus 1·3; bill from gape 1·4.

*Distribution.* The Karen hills and Karennee; Muleyit mountain in Tenasserim above 3000 feet.

**127. Pomatorhinus austeni.** *Austen's Scimitar Babbler.*

Pomatorhinus austeni, *Hume, S. F.* x, p. 152 (1881); *Sharpe, Cat. B. M.* vii, p. 418; *Hume, S. F.* xi, p. 148.

*Coloration.* Resembles *P. ochraceiceps.* Differs in having the upper plumage olive-brown, with merely a tinge of ochraceous on the head and neck only, and in having the sides of the body, vent, and under tail-coverts olivaceous.

Legs and feet pale grey-brown, with a dull green shade, or greyish olive; claws light brown or horny yellow, brownish towards tips; soles yellowish; bill coral-red to orange-vermilion; iris pale buff, or very pale orange, or white with an orange tint (*Hume*).

Length about 10; tail 4·6; wing 3·5; tarsus 1·3; bill from gape 1·5.

*Distribution.* The only specimens of this bird known are those procured by Hume in Eastern Manipur, where he states it was common in the higher forests.

### 128. **Pomatorhinus stenorhynchus.** *The Narrow-billed Scimitar Babbler.*

Pomatorhinus stenorhynchus, *Godwin-Austen, J. A. S. B.* xlvi, pt. ii, p. 43 (1877); *Hume, S. F.* v, p. 342; *Wardlaw Ramsay, Ibis,* 1878, p. 135, pl. v, fig. 2; *Hume, Cat.* no. 401 quint.; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 17; *Sharpe, Cat. B. M.* vii, p. 424.

*Coloration.* Resembles *P. ochraceiceps.* Differs in being of a paler ochraceous above and in having the lower parts, except the chin and throat, suffused with ochraceous or rufous buff.

Bill bright orange-red; legs and feet horny grey (*Godwin-Austen*).

Length about 8; tail 4·1; wing 3·5; tarsus 1·2; bill at gape 1·3 to 1·5; the female appears to be rather smaller than the male.

*Distribution.* The type of this species was procured at Manbum Tila on the Tenga Pani river near Sadiya, in Assam, at 8000 feet. Hume obtained it from Tippook, and I have seen a specimen which is labelled "Nága Hills."

The next four species have coarser bills, and two of them are sometimes placed in the genus *Orthorhinus* of Blyth.

### 129. **Pomatorhinus erythrogenys.** *The Rusty-cheeked Scimitar Babbler.*

Pomatorhinus erythrogenys, *Vigors, P. Z. S.* 1831, p. 173; *Gould, Cent.* pl. 55; *Blyth, Cat.* p. 146; *Horsf. & M. Cat.* ii, p. 235; *Jerd. B. I.* ii, p. 31; *Stol. J. A. S. B.* xxxvii, pt. ii, p. 37; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 269; *Hume, N. & E.* p. 251; *Brooks, S. F.* iii, p. 237; *Wardlaw Ramsay, Ibis,* 1878, p. 142; *Anders. Yunnan Exped., Aves,* p. 634; *Hume & Dav. S. F.* vi, p. 285; *Hume, Cat.* no. 405; *Scully, S. F.* viii, p. 288; *Oates, B. B.* i, p. 75; *Sharpe, Cat. B. M.* vii, p. 430; *Oates in Hume's N. & E.* 2nd ed. i, p. 87.

Pomatorhinus ferrugilatus, *Hodgs. As. Res.* xix, p. 180 (1836).

*Ban-bukra,* at Mussoorie; *Yongohut-pho,* Lepch.

*Coloration.* Upper plumage, tail, and the exposed parts of closed wing olive-brown; lores white streaked with grey; some white feathers on the eyelids; a moustachial stripe, red near the bill and then black; forehead, ear-coverts, sides of the neck, thighs, and under tail-coverts chestnut; sides of breast and body chestnut washed with olivaceous; chin, throat, centre of breast, and abdomen white, the chin and throat striped with very pale grey.

Nestlings are rufous all over except on the throat.

Legs and feet brownish fleshy; bill light horny; iris light greenish white, yellowish white, very pale yellow (*Hume*); iris pearly white (*Davison*).

Length about 11; tail 4; wing 4; tarsus 1·5; bill from gape 1·5.

The above description applies to birds collected in the Himalayas west of Nepal, whence the type of Vigors's *P. erythrogenys* came.

All birds from this region, without exception, have the chin and throat white, very sparingly streaked with pale grey. In the countries east of Nepal all birds have the chin, throat, and upper breast dark grey streaked with white. So constant are these characters that the tract from which a specimen came can be instantly known by a glance at the bird.

When we come to Nepal we find a mixture of both races. Hodgson's collection contains both, but he only figured the grey-throated one. Scully only obtained the grey-throated race in the Nepal valley, but the only two specimens of his that I have been able to examine are not nearly so dark as Sikhim examples, and the same may be said of Hodgson's. Mandelli's Dolaka (E. Nepal) specimens are identical with Sikhim ones, being quite as dark. It thus appears that in Nepal there is an intermediate race, and under these circumstances I have not thought it proper to keep the north-west race distinct from the Sikhim one, but it will probably have to be done hereafter when a complete Nepal series is available for examination. The existing Nepal series is a very bad one.

The Tenasserim bird appears to be distinct, being a small bird with the wing 3·5 and tail 3·7; and the whole chin and throat are pure white without a trace of grey. I have, however, examined only one specimen, and these characters may not be constant *.

The black cheek-stripe is present in all the races and is certainly not a character possessed only by the male. It is found in all well-prepared skins of both sexes.

*Distribution.* The Himalayas from Murree to Bhutan; the Khási hills; Bhamo; the pine-forests of the Salween valley; Thatone, Tenasserim. This species appears to be found at all elevations from 2000 to 10,000 feet or even higher.

*Habits, &c.* Breeds from April to June, constructing a domed nest of grass and leaves on the ground or in a thick bush close to the ground. The eggs, three or four in number, measure 1·11 by ·8.

### 130. **Pomatorhinus macclellandi.** *McClelland's Scimitar Babbler.*

Pomatorhinus macclellandi, *Jerd. B. I.* ii, p. 32 (1863) (descr. nullâ); *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 103 (1870); *Jerd. Ibis,* 1872, p. 302; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 177; *Wardlaw Ramsay, Ibis,* 1878, p. 143; *Hume, S. F.* iii, p. 412; *id. Cat.* no. 404 quat.; *Sharpe, Cat. B. M.* vii, p. 431; *Hume, S. F.* xi, p. 149.

Pomatorhinus gravivox, *David, Ann. Sci. Nat.* xviii, art. v, p. 2 (1873).

*Coloration.* Upper plumage, tail, exposed parts of closed wings, and sides of the neck olive-brown; point of the forehead rufous; lores whitish in front, blackish behind; cheek-stripe black; ear-coverts chestnut; chin, throat, breast, and abdomen white, the upper breast with a cross band of triangular black spots; sides of body olive-brown; thighs and under tail-coverts deep chestnut.

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* Count Salvadori has recently sent me another specimen, procured by Fea in Karennee. It agrees exactly with Hume's Tenasserim bird both in dimensions and colour. The Count has named this race *P. imberbis* (Ann. Mus. Civ. St. Nat. Genova (2) vii, p. 410, 1889), but too late for the name to be more than noticed here.

Legs and feet pale brown; upper mandible dark brown, lower pale horny drab; orbital skin and bare space behind eye leaden dusky; iris reddish or salmon-white, yellowish white, or very pale yellow (*Hume*); iris lemon-yellow (*Cockburn*).

Length about 9; tail 3·6; wing 3·4; tarsus 1·3; bill from gape 1·3.

*Distribution.* The National Collection contains a large series collected by Hume in Manipur and another by Cockburn at Shillong. The only other example is a bird which Sharpe assures us is Jerdon's type from Dibrugarh in Assam. This species has been obtained by Godwin-Austen in the Barail range and in the Nága hills.

### 131. **Pomatorhinus hypoleucus.** *The Arrakan Scimitar Babbler.*

Orthorhinus hypoleucus, *Blyth, J. A. S. B.* xiii, p. 371 (1844); *Hume, Cat.* no. 405 bis.

Pomatorhinus hypoleucus (*Blyth*), *Blyth, J. A. S. B.* xiv, p. 597; *id. Cat.* p. 146; *Horsf. & M. Cat.* i, p. 236; *Blyth, Birds Burm.* p. 113; *Hume, S. F.* iii, p. 411; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 75; *id. Proc. A. S. B.* 1877, p. 147; *Wardlaw Ramsay, Ibis,* 1878, p. 140; *Sharpe, Cat. B. M.* vii, p. 428; *Oates, B. B.* i, p. 75.

Pomatorhinus albicollis, *Horsf., Gray & Mitch. Gen. Birds,* i. p. 229, pl. 57 (1846).

Pomatorhinus inglisi, *Hume, S. F.* v, p. 31 (1877); *Sharpe, Cat. B. M.* vii, p. 429.

Orthorhinus inglisi (*Hume*), *Hume, Cat.* no. 405 ter; *id. S. F.* ix, p. 253; xi, p. 152.

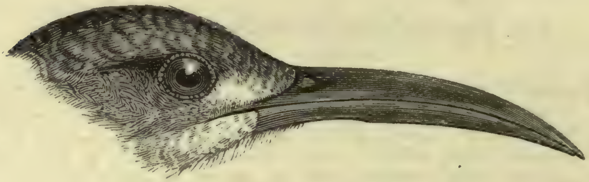

Fig. 33.—Head of *P. hypoleucus.*

*Coloration.* Upper plumage olive-brown, deeply tinged with rufous on the tail and exposed parts of closed wings; ear-coverts and cheeks greyish brown; lores grey; a line commencing above the eye, passing over the ear-coverts and terminating in a broad patch behind them bright rusty; chin, throat, breast, and abdomen white; sides of breast deep slaty grey streaked with white; the breast with a few small spots of slaty grey; sides of body and the thighs rufous-ashy; under tail-coverts ferruginous.

Bill pale greenish or greyish horny; legs and feet pale silvery leaden; iris brown (*Hume*).

Length about 11; tail 4·5; wing 4·3; tarsus 1·5; bill from gape 1·8.

The young bird wants the bright rusty colour on the side of the head.

There has been a good deal of controversy regarding this bird. After studying the series in the British Museum, consisting of about a dozen skins, I have arrived at the conclusion that *P. inglisi* is the young bird, and *P. hypoleucus* the adult. The series contains intermediate specimens showing a perfect gradation between the two supposed species.

*Distribution.* Assam from the Daphla hills to Sadiya; the Gáro, Khási, and Nága hills; Cachar; Manipur; Arrakan.

### 132. **Pomatorhinus tickelli.** *Tickell's Scimitar Babbler.*

Pomatorhinus hypoleucus (*Blyth*), *apud Blyth, J. A. S. B.* xxiv, p. 273 (1875).

Pomatorhinus tickelli, *Blyth, Tickell, Ibis,* 1863, p. 113 (descr. nullâ); *Wardlaw Ramsay, Ibis,* 1878, p. 142; *Oates, B. B.* i, p. 76; *Sharpe, Cat. B. M.* vii, p. 429.

Orthorhinus tickelli, *Hume, S. F.* v, p. 32 (1877); *Hume & Dav. S. F.* vi, p. 285; *Hume, Cat.* no. 405 quat.; *Bingham, S. F.* ix, p. 181; *Hume, S. F.* ix, p. 253; xi, p. 153.

*Coloration.* Upper plumage rich olive-brown, deeply tinged with rufous on the tail and exposed parts of closed wing; lores, cheeks, and ear-coverts rufescent; a patch of deep rufous on the side of the neck behind the ear-coverts; a line commencing just over the eye, passing over the ear-coverts and terminating in the neck-patch, rufous, the feathers with central white streaks, increasing in size posteriorly, and extending to the sides of the neck and shoulders; chin, throat, breast, and centre of abdomen white suffused with a pink tinge; sides of the breast deep slaty grey streaked with white; thighs and sides of body rufous-ashy; under tail-coverts ferruginous.

The legs and feet vary a good deal, being pale bluish green, very pale brown, or pale whitish blue; the upper mandible pale brown, the lower mandible pale whitish blue; iris pale to dark brown and brownish red; naked patch behind eye flesh-colour, more or less strongly tinged blue (*Hume & Davison*).

Length nearly 12; tail 4·3; wing 4; tarsus 1·6; bill from gape 1·8.

*Distribution.* Tenasserim from Thatone to Tavoy among the higher hill-ranges, extending eastward to the valley of the Thoungyeen.

*Habits, &c.* Mr. Davison remarks:—"This Babbler I always found in thick forests, usually in pairs, but occasionally in small parties. It keeps much more to the ground than any *Pomatorhinus*, hopping about in a very ungainly manner."

## Genus **XIPHORHAMPHUS**, Blyth, 1843.

This genus merely differs from *Pomatorhinus* by its excessively long and still more slender bill. Only one species is known.

### 133. **Xiphorhamphus superciliaris.** *The Slender-billed Scimitar Babbler.*

Xiphirhynchus superciliaris, *Blyth, J. A. S. B.* xi, p. 175 (1842).
Xiphorhamphus superciliaris (*Blyth*), *Blyth, J. A. S. B.* xii, p. 947; *id. Cat.* p. 147; *Horsf. & M. Cat.* i, p. 238; *Jerd. B. I.* ii, p. 33; *id. Ill. Ind. Orn.* pl. 49; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 198; *Hume, Cat.* no. 406; *Sharpe, Cat. B. M.* vii, p. 433; *Hume, S. F.* xi, p. 153; *Oates in Hume's N. & E.* 2nd ed. i, p. 89.

*Karriok-tamveep*, Lepch.

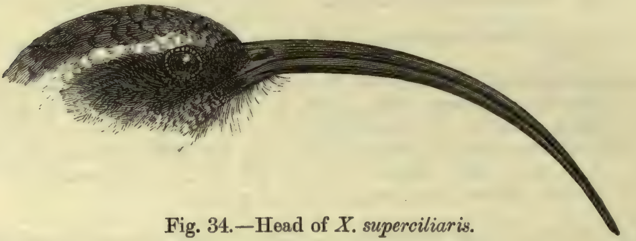

Fig. 34.—Head of *X. superciliaris.*

*Coloration.* Lores black; chin and upper throat white streaked with ashy; with these exceptions, the whole head is slaty grey with white tips to the feathers at the side of the crown, forming an interrupted white supercilium from the forehead to the nape; upper plumage bright rufous-brown; tail dark brown or blackish, the outer webs on their basal halves washed with the colour of the back; wings dark brown, the outer webs olive-brown, and the tertiaries rufous-brown; breast and abdomen ferruginous; sides of the body, vent, and under tail-coverts rufous-brown; thighs plumbeous.

Bill dusky black, plumbeous at the tip; legs leaden brown; iris red-brown (*Jerdon*).

Length nearly 9; tail 3·6; wing 3; tarsus 1·2; bill from gape to tip straight 2·3.

*Distribution.* This bird occurs in Sikhim. Hodgson figures the bird and nest, but his notes show that his specimens were procured in Sikhim and not in Nepal. The only other locality from which the species is known is the Manipur hills, where Godwin-Austen obtained it on the Konchungbum Peak.

*Habits, &c.* Breeds in Sikhim in May and June, constructing a globular nest of leaves and grass on the ground or in thick bushes or tufts of grass. The eggs are pure white, and measure 1·03 by ·72.

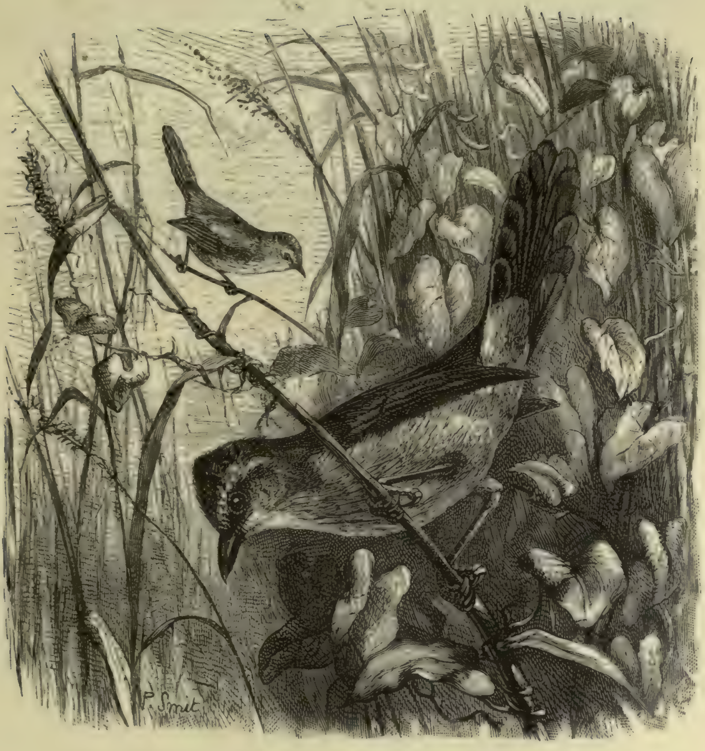

Fig. 35.—*Timelia pileata.*

## Subfamily TIMELIINÆ.

The second subfamily of the *Crateropodidæ* comprises a number of small birds which have close affinities for each other.

The *Timeliinæ* agree in being solitary in their habits, or rather they are less gregarious than the *Crateropodinæ*. Some of them are said to go about in small flocks, but this is by no means a general or usual character with them. They are above all things skulkers, frequenting the ground or underwood, and being seldom found many feet above the ground. They are not remarkably noisy, and they evade observation to the best of their power.

All the *Timeliinæ* lay spotted eggs, so far as is known, except *Stachyrhis*, the birds of which genus have their eggs unspotted white. The removal of these into the *Crateropodinæ* hereafter may be possible when the colour of the eggs of all the other genera is known; but at present the position of the genus is uncertain, and I have placed it in the present subfamily provisionally.

In none of the *Timeliinæ* is the head crested; the feathers of the crown are frequently lengthened and erectile, but in no case do they form a full crest.

In the *Timeliinæ* the sexes are invariably alike. They possess to the fullest degree the characters of the typical *Crateropodidæ*, namely the short, rounded wing and the strong feet. The young birds resemble the adults from the earliest age, more closely so, indeed, than any other group of birds I am acquainted with.

In India this subfamily is represented by 25 genera, of which four are now proposed to be separated for the first time, and by 53 species.

## *Key to the Genera.*

*a*. Tail much longer than the wing.
  *a*′. Shafts of feathers of crown rigid and glistening.
    *a*″. Bill as long as head, deep and black. TIMELIA, p. 131.
    *b*″. Bill shorter than head, slender and pale coloured .................. DUMETIA, p. 133.
  *b*′. Shafts of feathers of crown soft and not separable from webs.
    *c*″. Wing about three and a half times length of tarsus; bill notched.... GAMPSORHYNCHUS, p. 134.
    *d*″. Wing about two and a half times length of tarsus; bill entire...... PYCTORHIS, p. 137.
*b*. Tail equal to, or shorter than, wing, but always much longer than half the wing.
  *c*′. Bill stout and straight; base of culmen straight; closed bill deeper at middle than at nostrils.
    *e*″. Nostrils long, protected by an overhanging membrane.
      *a* . Rictal bristles weak or moderate.
        *a*$^4$. Wing and tail about equal in length .................... PELLORNEUM, p. 139.
        *b*$^4$. Tail much shorter than wing.
          *a*$^5$. Rictal bristles shorter; upper plumage plain .......... DRYMOCATAPHUS, p. 144.
          *b*$^5$. Rictal bristles longer; upper plumage squamated ...... CORYTHOCICHLA, p. 148.
      *b*‴. Rictal bristles long and strong.
        *c*$^4$. Tail shorter than wing by not more than length of hind toe. GYPSOPHILA, p. 149.
        *d*$^4$. Tail shorter than wing by much more than length of hind toe.
          *c*$^5$. Wing more than three times length of tarsus .......... MALACOPTERUM, p. 150.

*d*⁵. Wing less than three times length of tarsus.
  *a*⁶. Tail more than twice tarsus. Erythrocichla, p. 152.
  *b*⁶. Tail equal to twice tarsus . Trichostoma, p. 153.
*f*″. Nostrils small ovals, exposed, pierced in anterior corner of membrane . . Turdinus, p. 153.
*d*′. Bill stout and curved; culmen regularly curved from its base; bill deepest at nostrils.
  *g*″. Nostrils long, overhung by a large and prominent membrane.
    *c*‴. Nostrils not overhung by hairs . . Thringorhina, p. 155.
    *d*‴. Nostrils overhung by hairs . . . . Alcippe, p. 156.
  *h*″. Nostrils oval, exposed, pierced in anterior corner of membrane . . . . Rhopocichla, p. 159.
*e*′. Bill slender and pointed; its length from forehead to tip longer than hind toe.
  *i*″. Nostrils long and covered by a large membrane.
    *e*‴. Culmen very gently curved throughout. . . . . . . . . . . . . . . . . . . Stachyrhis, p. 161.
    *f*‴. Culmen quite straight throughout. Stachyridopsis, p. 164.
    *g*‴. Basal half of culmen straight, terminal half slightly curved . . Cyanoderma, p. 166.
  *k*″. Nostrils oval, exposed, pierced in anterior corner of membrane . . . . Mixornis, p. 166.
*f*′. Bill short and blunt; its length from forehead to tip less than hind toe.
  *l*″. Nostrils not overhung by hairs.
    *h*‴. Tail and wing about equal in length; bill stout . . . . . . . . . . Schœniparus, p. 168.
    *i*‴. Tail considerably shorter than wing; bill slender . . . . . . . . . . Sittiparus, p. 171.
  *m*″. Nostrils overhung by hairs.
    *k*‴. Bill narrow; rictal bristles short; hind claw very large, as long as hind toe . . . . . . . . . . . . . . . . . . . . . Proparus, p. 173.
    *l*‴. Bill broad; rictal bristles long; hind claw moderate, shorter than hind toe . . . . . . . . . . . . . . . . . . . . . Lioparus, p. 174.
*c*. Tail less than half the wing.
  *g*′. Bill as long as or longer than head, curved downwards . . . . . . . . . . . . . . . . Rimator, p. 175.
  *h*′. Bill half length of head, straight . . . . Turdinulus, p. 176.

## Genus **TIMELIA**, Horsf., 1821.

The genus *Timelia* contains only one species, and is characterized by the peculiar rigid shafts of the feathers on the forehead and crown, and by its deep black bill. The tail is longer than the wing and much graduated, the outer feather reaching to the middle of the tail.

### 134. **Timelia pileata.** *The Red-capped Babbler.*

Timelia pileata, *Horsf. Trans. Linn. Soc.* xiii, p. 151 (1821); *Blyth, Cat.* p. 149; *Horsf. & M. Cat.* i, p. 227; *Jerd. B. I.* ii, p. 24; *Hume, N. & E.* p. 246; *id. S. F.* iii, p. 118; *Oates, S. F.* v, p. 152; *Anders. Yunnan Exped., Aves,* p. 634; *Hume & Dav. S. F.* vi, p. 267; *Oates, B. B.* p. 44; *Sharpe, Cat. B. M.* vii, p. 507; *Oates in Hume's N. & E.* 2nd ed. i, p. 90.

Timelia bengalensis, *Godwin-Austen, J. A. S. B.* xli, pt. ii, p. 143 (1872); *Oates, S. F.* vii, p. 41; *Cripps, S. F.* vii, p. 277; *Hume, Cat.* no. 396; *id. S. F.* xi, p. 143.

Timelia jerdoni, *Wald. A. M. N. H.* (4), x, p. 61 (1872); *Bl. & Wald. Birds Burm.* p. 114.

*The Red-capped Wren-Babbler,* Jerd.

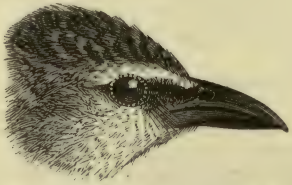

Fig. 36.—Head of *T. pileata.*

*Coloration.* Forehead and a streak on each side over and past the eye white; lores black; crown deep rufous; ear-coverts white in front, ashy behind; upper plumage and exposed parts of wings olive-brown, tinged with fulvous, the mantle suffused with ashy and with blackish shafts; tail dark brown, cross-rayed; cheeks, chin, and throat white; breast white, with distinct narrow black shaft-lines; sides of neck deep grey, produced down the sides of the breast; remainder of lower parts ferruginous, tinged with olivaceous on the sides of the abdomen.

Birds from the Himalayas, Assam, and Manipur have the lower parts more olivaceous and less ferruginous than those from other parts.

Javan birds have a very narrow white forehead, but differ in no other respect from Indian and Burmese specimens.

Bill black; iris dark red; eyelids dark bluish grey; mouth black; legs purpurescent-brown; claws horn-colour.

Length 7; tail 3·2; wing 2·5; tarsus 1; bill from gape ·75.

*Distribution.* The plains and lower hills along the border of Nepal, Sikhim, and Bhutan, extending up the Assam valley to Sadiya. This bird is found over a considerable portion of Bengal. Thence it occurs in all the countries to the east and southwards throughout Burma as far as the central portion of Tenasserim. It is found in Siam and Cochin China, and although not known to occur in the Malay peninsula it reappears in Java.

*Habits, &c.* This Babbler inhabits by preference extensive grass plains, but it is also found, though in fewer numbers, in bush-jungle and in the vicinity of villages. It is an active, bright bird, creeping about grass near the ground, and seldom showing itself but frequently uttering its pleasant notes. It breeds in May and June, constructing a domed nest of grass either on the ground or in a fork of a bush near the ground. The eggs, three in number, are white, speckled with brown, and measure ·71 by ·58.

## Genus **DUMETIA**, Blyth, 1849.

This genus, which contains two common Indian species, resembles *Timelia* very closely in structure, especially in the stiffness of the shafts of the feathers of the forehead and crown. The essential difference between the two genera is that in *Dumetia* the bill is much smaller, more slender, and of a pale colour, and in *Timelia* larger, deeper, and black.

*Key to the Species.*

| | |
|---|---|
| *a.* Chin and throat rufous .................. | *D. hyperythra*, p. 133. |
| *b.* Chin and throat white..................... | *D. albigularis*, p. 134. |

### 135. **Dumetia hyperythra.** *The Rufous-bellied Babbler.*

Timalia hyperythra, *Franklin, P. Z. S.* 1831, p. 118.
Dumetia hyperythra (*Frankl.*), *Blyth, Cat.* p. 140; *Jerd. B. I.* ii, p. 26; *Hume, N. & E.* p. 246; *Ball, S. F.* vii, p. 213; *Hume, Cat.* no. 397; *Sharpe, Cat. B. M.* vii, p. 515; *Barnes, Birds Bom.* p. 176; *Oates in Hume's N. & E.* 2nd ed. i, p. 92.

*Coloration.* Forehead and anterior half of the crown reddish brown, the feathers of the former part rigid, pointed, with large fulvous streaks, and with the shafts black when viewed in certain lights; feathers round the eye white; upper plumage, tail, and exposed parts of wing olive-brown, the tail cross-rayed; cheeks and near the eye fulvous with paler shafts; ear-coverts somewhat paler than the upper plumage and with pale shafts; entire lower plumage bright fulvous.

Legs and feet very pale fleshy; bill livid pale horny; iris light brown (*Hume Coll.*).

Length about 5·5; tail 2·6; wing 2·2; tarsus ·7; bill from gape ·6.

*Distribution.* This bird has a large range. In the south it is found at Khandála on the west and throughout the Godávari valley on the east. Thence, going north, it is spread throughout the Central Provinces, Central India, Chutia Nagpur, the North-West Provinces, and part of Bengal up to the lower valleys of the Himalayas from Kumaon to Sikhim. Specimens have been collected at Pareshnáth hill and in Midnapur and Birbhum, but not in Lower Bengal. Its western limits are not traceable with any accuracy, but it occurs at Mhow, and probably Delhi will prove another point on its western boundary.

*Habits, &c.* This species occurs in small parties and has much the habits of *Argya*, frequenting bushes and feeding on the ground.

It breeds from June to August, constructing a ball-shaped nest of grass on or near the ground in bushes. The eggs, four in number, are white speckled with red and measure ·67 by ·53.

### 136. **Dumetia albigularis.** *The Small White-throated Babbler.*

Malacocercus? albogularis, *Blyth, J. A. S. B.* xvi, p. 453 (1847).
Dumetia albogularis (*Blyth*), *Blyth, Cat.* p. 140; *Horsf. & M. Cat.* i, p. 403; *Jerd. B. I.* ii, p. 26; *Hume, N. & E.* p. 247; *id. Cat.* no. 398; *Legge, Birds Ceyl.* p. 505; *Sharpe, Cat. B. M.* vii, p. 514; *Barnes, Birds Bom.* p. 177; *Oates in Hume's N. & E.* 2nd ed. i, p. 94.

*The White-throated Wren-Babbler,* Jerd.; *Pandi-jitta,* Tel.; *Batitchia* Ceyl.

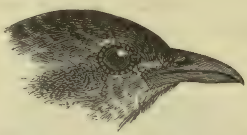

Fig. 37.—Head of *D. albigularis.*

*Coloration.* Resembles *D. hyperythra.* Differs in having a white chin and throat.

This bird varies a good deal throughout its extensive range. From Mount Abu and Deesa down to Mahableshwar the greater number of birds have nearly the whole crown deep rufous with pale shaft-streaks and the shafts themselves more or less black. In Mysore and the Wynaad the rufous is restricted to the forehead, the feathers having intensely black shafts, and all the white feathers of the throat having conspicuously black shafts. Ceylonese birds resemble the Mysore and Wynaad ones, but the throat is without the black shafts so conspicuous in the latter. The iris also varies: Ceylon, greyish olive or white (*Legge*); Wynaad, white (*Davison*); Deesa, dark brown (*Butler*).

Bill, legs, and claws pinkish fleshy; the upper mandible along the culmen as also the claws tinged with brown (*Davison*).

Length nearly 6; tail 2·7; wing 2·2; tarsus ·75; bill from gape ·6.

*Distribution.* From Sámbhar, Abu, and Deesa down the western portion of the peninsula to Ceylon. The most eastern locality where this species has been obtained appears to be Goona, whence King records it. It is found up to 3000 feet of elevation or even higher.

*Habits, &c.* Similar to those of the preceding. This bird breeds from April to July, in the same manner as the last species. The eggs measure ·72 by ·51.

## Genus **GAMPSORHYNCHUS**, Blyth, 1844.

The present genus contains two species peculiar to India. Very little is known about their habits and nothing whatever about their nidification. The young birds deviate considerably from the adult in the colour of their plumage, more so than is usual in this subfamily. Pending a better acquaintance with them, their position at present appears to be in the *Timeliinæ*.

They are birds of rufous or golden-brown plumage with white heads. The bill is about half the length of the head and very shrike-like in shape. The rictal bristles are very long. The tail is much longer than the wing and much graduated, the outer feather extending over less than two thirds of the tail. They appear to be frequenters of thick jungle and to creep about in the manner of the *Timeliinæ*.

*Key to the Species* *.

| | |
|---|---|
| *a.* Tail tipped with yellowish buff; upper plumage golden brown | *G. rufulus*, p. 135. |
| *b.* Tail tipped with white; upper plumage rufous brown | *G. torquatus*, p. 136. |

### 137. **Gampsorhynchus rufulus.** *The White-headed Shrike-Babbler.*

Gampsorhynchus rufulus, *Blyth, J. A. S. B.* xiii, p. 371 (1844); *id. Cat.* p. 150; *Horsf. & M. Cat.* i, p. 171; *Jerd. B. I.* ii, p. 14; *Blyth & Wald. Birds Burm.* p. 109; *Wald. Ibis*, 1875, p. 460; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 73; *Hume, Cat.* no. 384; *Oates, B. B.* i, p. 40; *Sharpe, Cat. B. M.* vii, p. 386; *Hume, S. F.* xi, p. 135.

*The White-headed Shrike-Thrush*, Jerd.; *Chongto-phep-pho*, Lepch.

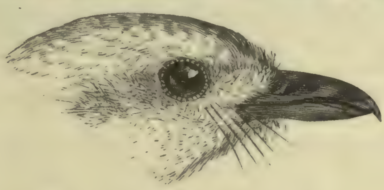

Fig. 38.—Head of *G. rufulus*.

*Coloration.* The whole head, neck, and breast white; the anterior rictal bristles black with white bases, the hindmost one entirely white; upper plumage, tail, and exposed part of wings golden brown, except the lesser and median coverts and the edge of the wing which are white; quills dark brown; tail edged interiorly and tipped with yellowish buff; lower plumage pale fulvous.

Bill dusky horny above, pale beneath; legs reddish horny; iris orange-yellow in some, straw-yellow in others (*Jerdon*).

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* Here should be noticed the *Thamnocataphus picatus*, Tick., of Jerdon (B. I. ii. p. 13), which turns out to be a well-known South-African Bush-Shrike (*cf.* Sharpe, Cat. B. M. vii, p. 324, note). Tickell appears to have received the skin from some European correspondent, to have got it mixed up with his Indian collection and then to have described it as Himalayan.

Length about 10; tail 4·7; wing 3·9; tarsus 1·1; bill from gape 1.

The young bird has the forehead, crown, nape, hind neck, and sides of the head and neck bright chestnut; the eye with a ring of white feathers round it; the fulvous of the lower parts extends up to the breast and frequently to the throat; the white on the wing is wanting and the tone of the whole plumage is more rufous.

The young bird commences to assume the white head in January by the gradual acquisition of new feathers, and the white head of the adult does not appear to be entirely acquired till May, or when the birds are about one year old. The white wing-patch comes on last of all, and there is no sign of it till the head is nearly wholly white.

There is a young bird in the British Museum which was just able to fly and was killed in Sikhim in July.

*Distribution.* The lower ranges and valleys of Sikhim; Sadiya and Tippook in Assam; the Daphla hills; the Garo hills; Arrakan.

### 138. **Gampsorhynchus torquatus.** *The Ring-necked Shrike-Babbler.*

Gampsorhynchus torquatus, *Hume, Proc. A. S. B.* 1874, p. 107; *id. S. F.* ii, p. 446; *Wardlaw Ramsay, Ibis,* 1875, p. 352; *Hume & Dav. S. F.* vi, p. 258; *Hume, Cat.* no. 384 bis; *id. S. F.* viii, p. 168; *Bingham, S. F.* ix, p. 178; *Sharpe, Cat. B. M.* vii, p. 387; *Oates, B. B.* i, p. 41.

*Coloration. Adult.* The whole head and neck, chin, throat, and upper breast white; lesser and median coverts and edge of wing also white; upper plumage rufous-brown, the outer webs of the earlier primaries and the tips of the others hoary grey; tail brown, washed with rufous on the outer webs, tipped with white, and the inner webs partially bordered with white; lower plumage pale fulvous, the sides of the neck with some rufous and blackish marks.

Bill greyish horny or fleshy white, with, in some cases, a dusky line on the culmen; legs and feet greyish white, or slaty white, or fleshy white with a blue tinge; iris pale to bright golden (*Hume & Davison*).

Length about 10; tail 4·8; wing 4; tarsus 1·1; bill from gape 1.

The youngest bird that I have been able to examine resembles the adult in having a white head, but there are some rufous-brown feathers on the nape and hind crown; there is also a very complete black collar across the chest, dividing the white of the throat from the fulvous of the breast, and the white wing-spot is entirely absent.

This collar gradually disappears, but traces of it are found on the sides of the neck for a long time.

The nestling bird probably has the crown of the head of the same colour as the upper plumage.

*Distribution.* From the Toungngoo hills and Karennee to the central portion of Tenasserim. This species has been found also at Perak, but the bird from this place has been separated by Sharpe, unnecessarily in my opinion.

*Habits, &c.* There is nothing known about this or the preceding species, except that they have both been procured in bamboo and bush jungle and in evergreen forest.

## Genus **PYCTORHIS**, Hodgs., 1844.

This genus is almost peculiar to India, one species only ranging into Siam. It is characterized by a very short deep bill without a notch; oval and exposed nostrils; and a long tail much graduated, the outer feather reaching to about the middle of the tail. All the species are birds of very neat plumage, and they have pretty notes, which at the breeding-season almost constitute a song.

### *Key to the Species.*

*a.* Bill black; forehead plain rufous.
  *a'.* Nostrils yellow ........................ *P. sinensis*, p. 137.
  *b'.* Nostrils black ........................ *P. nasalis*, p. 138.
*b.* Bill yellowish brown; forehead black with ashy margins ........................ *P. altirostris*, p. 139.

### 139. **Pyctorhis sinensis.** *The Yellow-eyed Babbler.*

Parus sinensis, *Gm. Syst. Nat.* i, p. 1012 (1788).
Timalia hypoleuca, *Franklin, P. Z. S.* 1831, p. 118.
Timalia bicolor, *Lafr. Mag. de Zool.* 1835, text to pl. 39.
Timalia horsfieldii, *Jard. & Selby, Ill. Orn.* pl. 119.
Chrysomma sinense (*Gm.*), *Blyth, Cat.* p. 150; *Horsf. & M. Cat.* i. p. 230.
Pyctorhis sinensis (*Gm.*). *Jerd. B. I.* ii, p. 15; *Hume, N. & E.* p. 237; *Anders. Yunnan Exped., Aves*, p. 637; *Hume, Cat.* no. 385; *Oates, B. B.* i, p. 46; *Sharpe, Cat. B. M.* vii, p. 510; *Barnes, Birds Bom.* p. 174; *Hume, S. F.* xi, p. 136; *Oates in Hume's N. & E.* 2nd ed. i, p. 95.

*Gal-chasm* or *Bulal-chasm*, H. in the South; *Bara-podna*, H. in the N. W. P.; *Yerra Kali-jitta*, Tel.; *Mullala*, Sind.

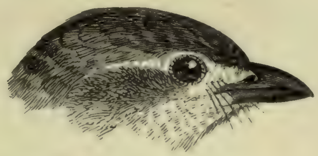

Fig. 39.—Head of *P. sinensis.*

*Coloration.* The whole upper plumage, ear-coverts, and sides of the neck rufescent brown, changing to cinnamon on the tertiaries and the outer webs of the other quills; lores, a short eyebrow the feathers on the eyelids, chin, throat, cheeks, and breast pure white; abdomen, vent, flanks, and under tail-coverts pale fulvous; tail very faintly cross-rayed.

Iris pale orange-yellow; eyelids deep orange; bill black, yellowish at the nostrils; legs pale orange-yellow; claws pinkish; mouth yellow in winter, black in summer.

Length about 7; tail 3·4; wing 2·5; tarsus 1; bill from gape ·6.

*Distribution.* Every portion of the Empire, in the plains and lower hills, except Ceylon and Tenasserim south of Moulmein, but extending into Siam. This bird appears to be found in the hills up to an elevation of 5000 feet.

*Habits, &c.* Frequents every description of jungle except thick forest, but is more abundant perhaps in heavy grass than elsewhere. This bird is generally seen singly or in pairs, creeping about the vegetation near the ground and occasionally mounting to the top of a stem of grass or a branch to look round and utter its note. It breeds from May to September, constructing a deep cup-shaped nest of blades of grass and fibrous bark, which is attached to a few stems of grass or placed in a branch of a low tree. The eggs, three or four in number, are pinkish white blotched with red, and measure ·73 by ·59.

### 140. **Pyctorhis nasalis.** *The Ceylon Yellow-eyed Babbler.*

Pyctorhis nasalis, *Legge, A. M. N. H.* (5) iii, p. 169 (1879); *id. Birds Ceyl.* p. 512, pl. xxiv; *Hume, S. F.* viii, p. 73; *id. Cat.* no. 385 bis; *Sharpe, Cat. B. M.* vii, p. 512; *Oates in Hume's N. & E.* 2nd ed. i, p. 98.

*Coloration.* Resembles *P. sinensis.* Differs in having the nostrils black like the bill (instead of yellow); in having more white on the side of the head; and in having the tertiaries and the outer webs of the other quills rufous like the back and not cinnamon-coloured.

Iris golden yellow; eyelid chrome-yellow; loral skin, which is perceptible through the feathers, greenish yellow; bill and nostril black; legs and feet dull yellow; extremities of toes dusky; claws dusky horn-colour (*Legge*).

Of the same size as *P. sinensis.*

This species is not a very marked one; but the points of difference indicated above seem always to hold good in specimens from Ceylon. In dry skins, however, the yellow colour of the nostrils is not always apparent, and the identification of the species then rests almost entirely on the colour of the exposed parts of the closed wings.

*Distribution.* Ceylon.

*Habits, &c.* Apparently the same as those of the preceding species. Breeds from February to May. The eggs measure ·78 by ·58.

### 141. **Pyctorhis altirostris.** *Jerdon's Babbler.*

Chrysomma altirostre, *Jerd. Ibis,* 1862, p. 22; *Godw.-Aust. A. M. N. H.* (4) xvii, p. 34; *Hume, S. F.* iv, p. 504.
Pyctorhis altirostris (*Jerd.*), *Blyth & Wald. Birds Burm.* p. 117; *Godw.-Aust. J. A. S. B.* xlv, pt. ii. pp. 74, 197, pl. ix; *Blanf. S. F.* v, p. 245; *Oates, S. F.* v, p. 249; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 23; *Hume, Cat.* no. 386 bis; *Oates, S. F.* x, p. 206; *id. B. B.* i, p. 47; *Sharpe, Cat. B. M.* vii, p. 512; *Hume, S. F.* xi, p. 138.
Pyctorhis griseigularis, *Hume, S. F.* v, p. 116; *id. Cat.* no. 386 ter; *Barnes, Birds Bom.* p. 174.

*Coloration.* Forehead and a broad stripe to the eye hoary grey with black centres; lores grey; sides of head and neck greyish brown tinged with rufous, more hoary round the eye; whole upper plumage deep reddish brown, brighter on the tail and exposed parts of wings; chin, throat, cheeks, and upper breast grey; remainder of lower surface bright buff.

Upper mandible pale horn-colour, lower pinkish flesh-colour; iris hazel-brown; eyelid and orbital skin greenish yellow; legs and feet pinkish brown; claws pinkish horn-colour.

Length about 6·5; tail 3·3; wing 2·4; tarsus ·9; bill from gape ·55.

*Distribution.* Mangráni between Sukkur and Shikarpur in Sind; Bhutan and Buxa doars; the Bishnath plain and Sibságar in Assam; Thayetmyo; the plains of Pegu between the Pegu hills and the Sittoung from Kyeikpadein to Toungngoo.

*Habits, &c.* This bird is confined to vast plains of elephant-grass. It is a very difficult bird to observe; it creeps quietly through the clumps of grass and is seen for an instant only as it flies from one clump to another. It has a peculiar note, very different to that of *P. sinensis.*

## Genus **PELLORNEUM,** Swains., 1831.

The genus *Pellorneum* contains seven species which are almost exclusively Indian and greatly developed in the Eastern portion of the Empire.

In *Pellorneum* the tail and wing are about equal in length; the bill is about three fourths the length of the head, straight and notched at the tip; the nostrils are not overhung by hairs and the rictal bristles are extremely short. The breast is streaked; in five species very distinctly so, in the other two obsoletely.

The habits of all the species, so far as is known, are similar and may be dealt with here to avoid repetition. These Babblers are found solitary or in pairs in thick brushwood and neglected gardens, or places in fact which are not open and exposed. They are almost always seen on the ground and they utter a series of very pretty notes as well as harsh ones. Their nests are domed and built on the ground with one doubtful exception.

*Key to the Species.*

| | |
|---|---|
| *a.* Mantle streaked. | |
| *a'.* Forehead and eyebrow with black shaft-streaks | *P. mandellii*, p. 140. |
| *b'.* Forehead and eyebrow with only a few black specks at the ends of the feathers. | *P. minus*, p. 141. |
| *b.* Mantle not streaked. | |
| *c.* Breast boldly streaked with brown. | |
| *a''.* Crown rufous | *P. ruficeps*, p. 141. |
| *b''.* Crown chestnut | *P. subochraceum*, p. 142. |
| *c''.* Crown brown | *P. palustre*, p. 143. |
| *d'.* Breast with only a few obsolete stripes at the sides. | |
| *d''.* Throat and breast brown | *P. fuscicapillum*, p. 143. |
| *e''.* Throat and breast white | *P. ignotum*, p. 144. |

### 142. **Pellorneum mandellii.** *Mandelli's Spotted Babbler.*

Hemipteron nipalense, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844, *desc. null.*); *Hume, S. F.* i, p. 493.

Pellorneum mandellii, *Blanf. J. A. S. B.* xli, pt. ii, p. 165, pl. vii (1872); *Hume, S. F.* i, p. 298 note; *id. S. F.* xi, p. 144; *Oates in Hume's N. & E.* 2nd ed. i, p. 99.

Pellorneum nipalense (*Hodgs.*), *Hume, N. & E.* p. 248; *Blanf. S. F.* viii, p. 181; *Hume, S. F.* viii, p. 188; *id. Cat.* no. 399 bis; *Sharpe, Cat. B. M.* vii, p. 518.

Pellorneum pectoralis, *Godwin-Aust. J. A. S. B.* xlvi, pt. ii, p. 41 (1877); *Hume, S. F.* v, p. 340; *id. Cat.* no. 399 sept.

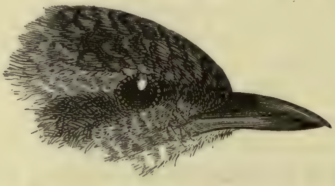

Fig. 40.—Head of *P. mandellii.*

*Coloration.* Forehead, crown, and nape rufous-brown; the feathers of the forehead with black shaft-streaks; a line from the forehead over the eye white, with the tips of the feathers black; this line produced to the nape and uniform creamy-white behind; ear-coverts rufous, margined below by a narrow dusky line; chin, throat, and cheeks white; the feathers of the hind neck and sides of the neck with the outer webs blackish, the inner creamy yellow; back, wing- and tail-coverts and tertiaries olive-brown with paler margins; rump and tail plain olive-brown, the latter very delicately tipped with whitish; wing-feathers dark brown, the outer webs the colour of the back, and those of the earlier primaries tinged with grey; lower plumage fulvous, the breast, sides of body, and under tail-coverts with large black streaks; centre of abdomen streakless; sides of body and flanks olivaceous.

Legs and feet fleshy creamy-white; upper mandible brown; lower mandible greenish-horny, yellow at base; iris dull hazel (*Hume*).

Length about 6·5; tail 2·6; wing 2·7; tarsus 1; bill from gape ·8.

*Distribution.* The lower hills of Nepal and Sikhim; the Bhutan and Buxa doars; Dibrugarh district, Assam; Khási, Garo, and N. Cachar hills; Manipur. In the British Museum there is a specimen labelled 'Gurwhal,' but this locality I think requires confirmation.

*Habits, &c.* Breeds from April to July, constructing a loose domed nest of moss, leaves, and fibres on the ground. The eggs, three in number, are white speckled with chocolate or purplish brown and measure ·87 by ·67.

### 143. **Pellorneum minus.** *Sharpe's Spotted Babbler.*

Pellorneum minor, *Hume, S. F.* i, p. 298 (1873); iii, p. 120.
Pellorneum intermedium, *Sharpe, Cat. B. M.* vii, p. 519, pl. xiii, fig. 1 (1883); *Oates, B. B.* i, p. 67; *Salvadori, Ann. Mus. Civ. Gen.* (2) iv, p. 597.

*Coloration.* Resembles *P. mandellii.* Differs in having a more slender bill; the black streaks on the forehead more sparse; the eyebrow more distinct, with only one or two black specks on it just in front of the eye; the outer webs of the feathers of the hind neck rufous-brown, not blackish; the streaks on the breast narrower and paler.

Legs fleshy yellow; bill dusky, yellowish at the base below (*Hume*).

Length about 6·5; tail 2·6; wing 2·6; tarsus 1; bill from gape ·75.

Hume first named this species from a specimen sent to him by Feilden from Thayetmyo. His type is in the British Museum, and he correctly described it as being like *P. mandellii* in having the sides of the head behind the ear-coverts and nape olive-brown, margined more or less broadly on one web with rufescent or buffy-white. He, however, afterwards allowed himself to be persuaded that his bird was nothing but *P. subochraceum*, a totally different type of *Pellorneum* with no white-edged feathers behind the nape. Sharpe, in the absence of Hume's type, very rightly gave a name to the Cachar bird, which is identical with the Thayetmyo one. Hume's name, however, has priority by ten years, and I am glad to be able to reinstate it.

*Distribution.* Cachar; Tipperah; Bhamo; Thayetmyo. Probably widely distributed.

### 144. **Pellorneum ruficeps.** *The Spotted Babbler.*

Pellorneum ruficeps, *Swains. Faun. Bor.-Am., Birds*, p. 487 (1831); *Blyth, Cat.* p. 145; *Horsf. & M. Cat.* i, p. 224; *Jerd. B. I.* ii,

p. 27; *Hume, N. & E.* p. 248; *Ball, S. F.* ii, p. 409; *Hume, Cat.* no. 399; *Davison, S. F.* x, p. 376; *Sharpe, Cat. B. M.* vii, p. 520; *Barnes, Birds Bom.* p. 177; *Oates in Hume's N. & E.* 2nd ed. i, p. 100.

*The Spotted Wren-Babbler*, Jerd.; *Adavi-liku-jittu*, Tel.

*Coloration.* Forehead, crown, and nape dull rufous; whole upper plumage and exposed parts of wings, sides of neck and the tail olive-brown, the latter very narrowly tipped white; lores and an indistinct supercilium dull creamy white; sides of the head paler rufous than the crown, mottled with black round the eye, and the ear-coverts streaked with brown; chin, throat, and cheeks white; lower plumage white or pale fulvous white, boldly streaked with black on the breast and sides of the abdomen and suffused with olivaceous on the flanks and thighs; under tail-coverts brown edged with white.

Specimens from Coorg, the Wynaad, and Travancore are more richly coloured and have more black on the sides of the head than birds from elsewhere.

Iris in the adult crimson-lake, in the immature bird cinnamon-brown; legs, feet, claws, and lower mandible fleshy white; upper mandible dark brown (*Davison*).

Length nearly 7·5; tail 2·8; wing 2·9; tarsus 1·05; bill from gape ·9.

*Distribution.* The peninsula of India as far north as Nandurbár in Khandesh on the west and extending to Pareshnáth and the Rajmehal hills on the east.

*Habits, &c.* Miss Cockburn, the only person who has found the nest of this bird, states that at Kotagiri it nests in March and April. The nest is a meagre structure of dry leaves and grass with a canopy over the eggs, and placed on the ground under a bush.

The eggs are greenish white, speckled with lilac and purplish grey; one egg measured ·88 by ·65.

### 145. **Pellorneum subochraceum.** *The Burmese Spotted Babbler.*

Pellorneum subochraceum, *Swinhoe, A. M. N. H.* (4) vii, p. 257 (1871); *Tweedd. Ibis*, 1877, pp. 385, 452, pl. x; *Hume & Dav. S. F.* vi, pp. 278, 514; *Hume, Cat.* no. 399 sex; *Oates, B. B.* i, p. 66; *Sharpe, Cat. B. M.* vii, p. 521; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 605; *Oates in Hume's N. & E.* 2nd ed. i, p. 100.
Pellorneum minor, *Hume, apud Oates, S. F.* iv, p. 406; v, p. 154.

*Coloration.* Forehead, crown, and nape light chestnut, the feathers of the forehead with black shafts and tips; lores fulvous white with black shafts; a broad superciliary streak to the nape creamy white or pale buff; the feathers immediately over the eye tipped brownish; ear-coverts and under the eye fulvous surrounded by dusky; upper plumage, tail, and exposed parts of wings olive-brown, the outer webs of the primaries tinged with ochraceous, the tail narrowly tipped with white; chin and throat white; lower plumage light fulvous, the breast and sides of the body streaked with dark brown; centre of the abdomen whitish; under tail-coverts fulvous with large central brown marks.

Iris red; upper mandible dark brown, lower yellow at base, changing to light brown at tip; mouth flesh-colour; eyelids greenish; legs light brownish yellow; claws flesh-colour.

Length about 6·5; tail 2·7; wing 2·6; tarsus 1; bill from gape ·8.

*Distribution.* Pegu and Tenasserim, alike in the plains and in the lower hills. This bird extends down the Malay peninsula. At Thayetmyo and in the extreme northern portion of Pegu it appears to be replaced by *P. minus.*

*Habits, &c.* Breeds from March to June, constructing a small domed nest of leaves and grass on the ground, generally under shelter of a bush, and laying three eggs which are whitish, very thickly speckled with reddish brown and purple; they measure ·82 by ·62.

### 146. Pellorneum palustre. *The Marsh Spotted Babbler.*

Pellorneum palustre, *Jerd., Gould, Birds Asia,* iii, pl. 65 (1872); *Hume, S. F.* i, p. 4 (1873); *Godw.-Aust. J. A. S. B.* xli, pt. ii, p. 142; *Jerd. Ibis,* 1872, p. 300; *Blanf. Ibis,* 1873, p. 215; *Hume, Cat.* no. 399 quat.; *Sharpe, Cat. B. M.* vii, p. 522; *Hume, S. F.* xi, p. 146.

*Coloration.* Upper plumage olive-brown, the forehead tinged with bright rufous produced back over the lores; tail and the outer webs of the wing-feathers rufous; lores white; cheeks white barred with brown; ear-coverts rufous, with paler shafts and mottled with brown; chin, throat, and a broad line down the centre of the breast and abdomen white; the remaining lower plumage rich ochraceous buff; the whole breast and the sides of the body with long, broad, distinct dark brown streaks; under tail-coverts rich ochraceous.

The colour of the bill, iris, &c. does not appear to have been recorded. In the dry skin the upper mandible is dark brown, the lower pale brown; the legs yellowish brown.

Length about 6; tail 2·6; wing 2·6; tarsus 1·1; bill from gape ·7.

*Distribution.* Khási hills; North Sylhet; Sadiya. Apparently found near swamps.

### 147. Pellorneum fuscicapillum. *The Brown-capped Babbler.*

Drymocataphus fuscocapillus, *Blyth, J. A. S. B.* xviii, p. 815 (1849); *id. Cat.* p. 340.

Pellorneum fuscicapillum (*Blyth*), *Blyth, Ibis,* 1867, p. 301; *Hume, S. F.* i, p. 299 note; *Legge, Birds Ceyl.* p. 510, pl. 23, fig. 1; *Hume, Cat.* no. 399 quint.; *Oates in Hume's N. & E.* 2nd ed. i, p. 102.

Scotocichla fuscicapilla (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 523.

*Batitchia,* Ceyl.

*Coloration.* Forehead, crown, and nape dark chocolate-brown, the shafts fulvous; upper plumage dark olive-brown, the tail tipped narrowly with ochraceous, the feathers of the wing-coverts and back with pale shafts, and the edges of the primaries tinged with rufous; lores, sides of the head and neck, and the whole lower plumage sienna-brown, the sides of the neck and breast with obscure dark striations on some of the feathers, the striations occasionally almost entirely absent.

Some birds have the crown and upper plumage paler, and these seem to be found in the northern part of Ceylon only; others having these parts darker are found in the south-western and central portions of the island only.

The iris varies from light reddish to dark red; eyelid olivaceous; upper mandible deep brown with a pale margin, lower flesh-colour; legs and feet brownish fleshy; claws pale brownish (*Legge*).

Length about 6·5; tail 2·5; wing 2·6; tarsus 1·1; bill from gape ·8.

*Distribution.* Ceylon, up to 6000 feet or more of elevation.

*Habits, &c.* A nest found in Ceylon, said to have belonged to this bird, was cup-shaped, loosely constructed of moss and leaves, and placed in a bramble about three feet from the ground.

### 148. **Pellorneum ignotum.** *The Assam Babbler.*

Pellorneum ignotum, *Hume, S. F.* v, p. 334 (1877); *id. Cat.* no. 399 ter A; *id. S. F.* xi, p. 146.

Turdinus nagaensis, *Godwin-Austen, A. M. N. H.* (4) xx, p. 519 (1877); *Hume, S. F.* vii, p. 143; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 16.

Drymocataphus ignotus (*Hume*), *Sharpe, Cat. B. M.* vii, p. 556.

*Coloration.* Whole upper plumage, tail, and exposed parts of wings rufescent olive-brown, the shafts of the feathers nowhere markedly paler, and the forehead not differing from the crown in colour; wings and tail rather more rufescent than the back; lores and over the eyes greyish brown; ear-coverts brown with paler shafts; sides of neck like the back; chin, throat, centre of breast and abdomen dull white, very slightly mottled with rufescent brown; remainder of lower plumage rusty brown.

Iris dark brown; legs and feet light sienna-grey (*Godw.-Aust.*).

Length 5·7; tail 2·2; wing 2·2; tarsus ·9; bill from gape ·65.

*Distribution.* The Eastern Nága hills; Dhollah, in the Dibrugarh district of Assam.

## Genus **DRYMOCATAPHUS**, Blyth, 1849.

This genus contains four Indian species which are allied in habits to *Pellorneum*, but differ from it in having a conspicuously shorter tail and longer bill. Two of the species are very closely allied to each other, and are not easily identified without actual comparing specimens of each; they have consequently been a fertile source of confusion in the past.

*Key to the Species.*

| | |
|---|---|
| *a*. Crown black | *D. nigricapitatus*, p. 145. |
| *b*. Crown not black. | |
| *a'*. Lower plumage bright ferruginous | *D. rubiginosus*, p. 145. |
| *b'*. Lower plumage fulvous. | |
| *a''*. Upper plumage fulvescent olive-brown. | *D. tickelli*, p. 146. |
| *b''*. Upper plumage rufescent olive-brown. | *D. assamensis*, p. 147. |

### 149. **Drymocataphus nigricapitatus.** *The Black-capped Babbler.*

Brachypteryx nigrocapitata, *Eyton, P. Z. S.* 1839, p. 103; *Blyth, Cat.* p. 178.

Drymocataphus nigrocapitatus (*Eyton*), *Horsf. & M. Cat.* i, p. 396; *Tweedd. Ibis,* 1877, p. 308; *Hume & Dav. S. F.* vi, p. 275; *Hume, Cat.* no. 396 sex; *Oates, B. B.* i, p. 63; *Sharpe, Cat. B. M.* vii, p. 554; *Oates in Hume's N. & E.* 2nd ed. i, p. 102.

*Coloration.* The lores, a broad supercilium reaching to the nape, and the cheeks grey, each feather with a white shaft-stripe; ear-coverts ashy rufous with whitish shafts; a very narrow moustachial stripe black; chin and throat white; sides of neck and the whole lower plumage ferruginous, brightest on the breast and tinged with brown on the flanks, lower abdomen, vent, and under tail-coverts; forehead, crown, and nape black; the whole upper plumage, tail, and exposed parts of wings deep ferruginous brown.

Legs and feet fleshy white, slightly tinged with brown or reddish horny; upper mandible black, lower fleshy white; iris rhubarb-red (*Hume Coll.*).

Length about 7; tail 2·4; wing 2·7; tarsus 1·15; bill from gape ·9.

*Distribution.* The extreme south of Tenasserim, extending to Sumatra.

*Habits, &c.* Feeds entirely on the ground, singly or in pairs. A shy bird, frequenting the densest portions of the forests. Davison describes the nest as being built on the ground of coarse fern-roots on a foundation of twigs and leaves. The only nest he found was at the base of a small clump of ferns, and contained two eggs. They are described as creamy white, very thickly speckled with inky purple and purplish brown. They measured ·82 by ·62.

### 150. **Drymocataphus rubiginosus.** *The Rufous Babbler.*

Trichostoma rubiginosa, *Wald. A. M. N. H.* (4) xv, p. 402 (1875); *id. in Blyth, Birds Burm.* p. 115; *Hume, S. F.* iii, p. 404; *id. Cat.* no. 387 ter.

Drymocataphus rubiginosus (*Wald.*), *Oates, B. B.* i. p. 65; *Sharpe, Cat. B. M.* vii, p. 560.

*Coloration.* The whole upper plumage olive-brown tinged with rufous; the outer webs of the wing-quills more rufous; chin and throat white; remaining lower plumage bright ferruginous, the centre of the abdomen albescent.

Iris light brown; bill blackish brown above, pale below, yellowish at gape; legs dull pinkish white (*Wardlaw Ramsay*).

Length about 7; tail 2·6; wing 3·1; tarsus 1·3; bill from gape ·95.

*Distribution.* The only two specimens of this species known were procured by Wardlaw Ramsay in Karennee, and are now in the British Museum. They appear to be not quite adult.

### 151. **Drymocataphus tickelli.** *Tickell's Babbler.*

Pellorneum tickelli, *Blyth, J. A. S. B.* xxviii, p. 414 (1859); *Hume, S. F.* i, p. 299, iii, p. 119; *Oates, S. F.* iv, p. 406; *Tweedd. Ibis,* 1877, pp. 386, 451; *Hume, Ibis,* 1878, p. 114; *Hume & Dav. S. F.* vi, pp. 277, 514; *Hume, Cat.* no. 399 ter; *id. S. F.* xi, p. 144.

Mixornis olivaceus, *Tick. J. A. S. B.* xxviii, p. 449 (1859).

Trichastoma minor, *Hume, S. F.* ii, p. 535; *Hume & Dav. S. F.* vi, p. 259; *Hume, Cat.* no. 387 bis; *Bingham, S. F.* ix, p. 179.

Turdinus garoensis, *Godwin-Austen, J. A. S. B.* xliii, pt. 2, p. 160, pl. viii (1874); *Hume, S. F.* iii, p. 393; *id. Cat.* no. 390 sept.; *id. S. F.* xi, p. 140.

Drymocataphus fulvus, *Wald. A. M. N. H.* (4) xv, p. 401 (1875); *Hume, S. F.* iii, p. 403, v, p. 59.

Drymocataphus tickelli (*Blyth*), *Tweedd. Ibis,* 1877, p. 452, pl. xi, fig. 1; *Oates, B. B.* i, p. 64; *Sharpe, Cat. B. M.* vii, p. 557; *Oates in Hume's N. & E.* 2nd ed. i, p. 103.

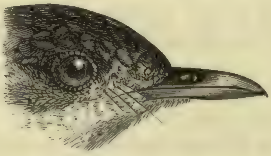

Fig. 41.—Head of *D. tickelli.*

*Coloration.* Whole upper plumage fulvescent olive-brown; the forehead more distinctly fulvous, the feathers of the crown pale-shafted; tail slightly rufescent; lores, a very indistinct eyebrow, and the feathers round the eye pale fulvous; ear-coverts fulvous brown with pale shafts; sides of neck similar to the back but slightly paler; cheeks and entire lower plumage uniform fulvous, with the very faintest indications of stripes on the throat and breast; centre of abdomen albescent *.

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* After examining all the specimens of birds in the Hume and Tweeddale collections, as well as others lent me by Godwin-Austen, which have a bearing on the identity of *D. tickelli,* I am of the same opinion as Sharpe and I arrived at some years ago—he when writing the seventh volume of the 'Catalogue,' and I when writing the 'Birds of Burmah.' This conclusion is briefly that *Trichastoma minor* of Hume is the same bird as *Pellorneum tickelli* of Blyth.

Bill dusky above, pale flesh-colour beneath; mouth yellow; iris reddish brown; eyelids greenish flesh-colour; legs and claws fleshy white.

Length about 6; tail 2; wing 2·4; tarsus 1; bill from gape ·8.

*Distribution.* There are undoubted specimens of this species in the Hume Collection from the Khási hills and from Manipur. Godwin-Austen obtained it in the Gáro hills.

It has been found in Karennee; on the eastern slopes of the Pegu hills; the central and southern portions of Tenasserim, and the Thoungyeen valley, in all of which tracts it appears to be fairly common.

*Habits, &c.* This species is a quiet little bird found in all sorts of jungle, creeping about bushes and on the ground singly or in pairs. Bingham found the nest in March, a domed structure of bamboo-leaves and roots placed in a cane-bush about one foot above the ground. It contained three eggs, white dotted with pink. One egg measured ·67 by ·51.

### 152. **Drymocataphus assamensis.** *Austen's Babbler.*

Turdinus garoensis, *Godwin-Austen, J. A. S. B.* xlv, pt. ii, p. 75 (1876), *nec* xliii, pt. ii, p. 160.
Drymocataphus assamensis, *Sharpe, Cat. B. M.* vii, p. 557 (1883).

*Coloration.* Upper plumage rufescent olive-brown, the forehead with fulvous shaft-stripes, the crown and mantle with conspicuous pale shafts; the outer webs of the primaries brighter rufous; sides of the head fulvous, mottled with brown; sides of the neck and lower plumage fulvous, albescent on the centre of the abdomen, and tinged with olivaceous on the sides of the breast and abdomen.

Iris red-brown; legs very pale fleshy (*Godw.-Aust.*).

Length about 6; tail 2·1; wing 2·6; tarsus 1·15; bill from gape ·7.

This species differs from *D. tickelli* in having the upper plumage rufescent olive-brown, and in having a longer tarsus.

The bird obtained by Godwin-Austen in the Gáro hills, and described by him as *T. garoensis* in 1874, proved, according to Sharpe, who examined it, to be merely a specimen of *D. tickelli.* This specimen, I regret to say, has been lost or mislaid. A second bird procured by Godwin-Austen in the Dikrang valley in Assam, and referred by him to the same *T. garoensis*, proved to be the present species, but it cannot bear Godwin-Austen's name. Sharpe has rightly renamed it.

*Distribution.* I have examined undoubted specimens of this species from the Khási hills, and from Dhollah and Sadiya in Assam. Godwin-Austen obtained it in the Dikrang valley, Assam.

*Habits, &c.* Godwin-Austen says:—"Proceeding through the dense underwood in the Dikrang valley, I caught sight of this bird on the narrow path above two yards from my feet, and at the first glance took it to be a small rodent. It was most fearless and made no attempt to fly off."

## Genus **CORYTHOCICHLA**, Sharpe, 1883.

This genus is barely separable from *Drymocataphus*; but on account of its somewhat longer rictal bristles and its squamated upper plumage it is perhaps convenient to keep it distinct.

### *Key to the Species.*

*a.* Sides of the head deep ashy; tips of wing-feathers white .......................... *C. brevicaudata*, p. 148.
*b.* Sides of the head brown; tips of the wing-feathers fulvous .......................... *C. striata*, p. 148.

### 153. **Corythocichla brevicaudata.** *The Short-tailed Babbler.*

Turdinus brevicaudatus, *Blyth, J. A. S. B.* xxiv, p. 272 (1855); *Hume & Dav. S. F.* vi, p. 262; *Hume, Cat.* no. 390 quint.; *Bingham, S. F.* ix, p. 179; *Oates, B. B.* i, p. 60.
Turdinus brevicauda (*Tickell*), *Wald. Ibis*, 1876, p. 354.
Corythocichla brevicaudata (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 592.

*Coloration.* Whole upper plumage and sides of the neck olive-brown; the feathers everywhere margined with black except on the rump and upper tail-coverts; tail rufescent; wings olive-brown, the coverts and all the quills, except the earlier primaries, tipped with a small white spot; lores, a short supercilium, cheeks, and under the eye deep ashy; ear-coverts the same, but tinged rufescent; chin and throat ashy white, streaked with dark brown; breast and lower plumage ferruginous, paler on the centre of the abdomen, darker on the flanks, vent, and under tail-coverts, which latter are tipped paler.

Legs, feet, and claws pale brown to pale fleshy brown; upper mandible very dark brown, lower plumbeous to pale plumbeous; iris deep brown, red-brown, cinnamon-red (*Hume & Davison*).

Length about 5·5; tail 1·7; wing 2·4; tarsus 1; bill from gape ·8.

*Distribution.* The higher slopes of Muleyit mountain in Tenasserim about 5000 feet.

*Habits, &c.* A rather rare bird, occurring on the thickly wooded and rocky parts of the mountain singly or in small parties. It feeds on the ground, and when alarmed it seldom flies, but retreats by hopping. Davison also remarks that its note is a long-drawn *Kirr-r-r*, usually uttered when disturbed.

### 154. **Corythocichla striata.** *The Streaked Babbler.*

Turdinus brevicaudatus, *Blyth, apud Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 269 (1870); *Hume, S. F.* xi, p. 140.
Turdinus striatus, *Wald. A. M. N. H.* (4) vii, p. 241 (1871); *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 16; *Hume, S. F.* vii, p. 462.

Turdinus williamsoni, *Godw.-Aust. J. A. S. B.* xlvi, pt. ii, p. 44 (1877).

Corythocichla striata (*Wald.*), *Sharpe, Cat. B. M.* vii, p. 593.

*Coloration.* Resembles *C. brevicaudata.* Differs in having the sides of the head brown instead of deep ashy, and in having the breast and lower plumage brown slightly tinged with rufous, instead of ferruginous; the spots at the tips of the wing-coverts and quills are less distinct, and are fulvous, not white.

The bill in the dry state has the upper mandible dark brown, the lower pale brown; the legs and feet are brown.

Length about 5; tail 1·8; wing 2·3; tarsus ·95; bill from gape ·8.

*Distribution.* The base of the Khási and Gáro hills; Sadiya in Assam. Godwin-Austen appears to have obtained this bird also in Manipur.

*Habits, &c.* This species is so close to *C. brevicaudata*, that the habits of the two are very likely to be the same.

## Genus **GYPSOPHILA**, Oates, 1883.

The genus *Gypsophila* contains one remarkable bird which is confined to certain limited tracts of limestone mountains in Tenasserim. Its plumage is of the most extraordinary character, and even the very large series of this bird in the Hume Collection affords no clue to its changes. For the present I locate this genus among the *Timeliinæ*, but I feel sure that this is not its proper place. Its place in the system must remain undetermined until its plumage from the young to the adult stage is properly understood.

In structure *Gypsophila* is close to *Pellorneum*, from which it differs chiefly in its longer rictal bristles and stronger bill. The upper plumage is squamated in appearance, owing to the feathers being margined with black.

### 155. **Gypsophila crispifrons.** *The Limerock Babbler.*

Turdinus crispifrons, *Blyth, J. A. S. B.* xxiv, p. 269 (1855); *id. Birds Burm.* p. 114; *Wald. Ibis,* 1876, p. 353; *Hume, S. F.* v. p. 87; *Hume & Dav. S. F.* vi, p. 262; *Hume, Cat.* no. 390 quat.; *Bingham, S. F.* ix, p. 179.

Gypsophila crispifrons (*Blyth*), *Oates, B. B.* i, p. 61; *Sharpe, Cat. B. M.* vii, p. 561.

*Coloration. Adult.* The whole head, neck, and lower plumage pure white; upper plumage olive-brown, the feathers of the back margined with black; each tertiary quill of the wing minutely tipped with white.

Younger birds have the forehead, lores, ear-coverts, a large space round the eyes, cheeks, chin, and throat pure white; remainder of lower plumage ochraceous olive-brown, with some blackish marks on the breast; crown, nape, and back olive-brown, each feather edged with black; remainder of upper plumage, tail, and exposed parts of wings plain olive-brown; tertiaries tipped with white.

What appear to be the young of the year have the crown, forehead, nape, and back olive-brown, margined with black; rump, upper tail-coverts, tail, and exposed parts of wings plain olive-brown; sides of the forehead and an indistinct supercilium greyish white with blackish specks; ear-coverts dark brown, with white shafts; chin, throat, and upper breast white streaked with dark brown, the streaks being nearly confluent on the breast; remainder of lower plumage ochraceous olive-brown. They appear to undergo no moult the first autumn, but to retain the young plumage till the first spring, when the change towards adult plumage probably begins by the chin and throat becoming white.

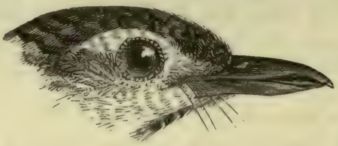

Fig. 42.—Head of *G. crispifrons.*

Iris pale red, red, light red, deep red-brown; upper mandible dark brown, lower pale plumbeous; legs, feet, and claws dark purplish brown (*Hume Coll.*).

Length about 8; tail 3; wing 3·2; tarsus 1·1; bill from gape ·9.

The above description of the plumage has been taken from a series of 76 specimens in the Hume Collection. Unfortunately the birds were all procured in December and March, with the exception of one shot in November and six in January. The series is therefore very incomplete, and it is quite impossible to arrive at any conclusion regarding the plumage of the young and its gradual development into that of the adult. The plumage is very perplexing and incomprehensible at present. Hume's note on the subject should be carefully read.

*Distribution.* The limestone ranges of the central portion of Tenasserim, such as those at Wimpong, the Thoungsha Gyne river, and Momenzeik.

*Habits, &c.* Davison remarks that this bird is excessively lively and sprightly. It keeps up continually a twittering chattering note, and sometimes will perch itself on some point of rock and with lowered wings and erected tail will pour forth a fine and powerful song. It feeds principally upon insects and land-shells.

### Genus **MALACOPTERUM**, Eyton, 1839.

The genus *Malacopterum* is remarkable for its lengthened wings and, in consequence, its comparatively short tail. The plumage is soft and silky. The two Indian species of this genus appear to be more arboreal than any of the preceding genera, and to have somewhat of the deportment of Bulbuls. The rictal bristles are very conspicuous on account of their length.

### *Key to the Species.*

| | |
|---|---|
| *a.* Crown bright ferruginous ................ | *M. magnum*, p. 151. |
| *b.* Crown olive-brown ...................... | *M. magnirostre*, p. 151. |

### 156. **Malacopterum magnum.** *The Red-headed Tree-Babbler.*

Malacopteron magnum, *Eyton, P. Z. S.* 1839, p. 103; *Horsf. & M. Cat.* i, p. 225; *Hume & Dav. S. F.* vi, p. 270; *Hume, Cat.* no. 396 ter.; *Oates, B. B.* i, p. 55; *Sharpe, Cat. B. M.* vii, p. 564.
Malacopteron majus, *Blyth, J. A. S. B.* xvi, p. 461 (1847); *id. Cat.* p. 148, *App.* p. xxi; *Tweedd. Ibis,* 1877, p. 309.

*Coloration.* Forehead and crown bright ferruginous, the anterior feathers black-shafted and the posterior ones faintly edged with black; lores and a broad supercilium grey, the middle of the feathers whitish; the whole nape black; ear-coverts fulvous brown with pale shafts; the whole upper plumage olive-brown, tinged with ferruginous on the rump, which colour also suffuses the upper tail-coverts and the outer webs of the tail-feathers; cheeks mottled grey and white; chin, throat, and upper breast white, streaked with grey; remainder of lower plumage greyish white.

Legs, feet, and claws blue, varying from pale plumbeous to pale smalt-blue; upper mandible dark horny brown, lower mandible and often the edges of the upper plumbeous blue or white tinged with blue, fading to bluish white at the tip; iris carmine to orange-red, changing probably according to age, as a younger bird has it pale sienna-brown (*Hume & Davison*).

Length about 7; tail 3; wing 3·5; tarsus ·9; bill from gape 1.

*Distribution.* The extreme south of Tenasserim, extending down the Malay Peninsula to Sumatra and Borneo.

*Habits, &c.* According to Davison this bird hunts about trees and bushes in pairs or small parties, seldom or never descending to the ground. Its weak feet corroborate this description of its habits.

### 157. **Malacopterum magnirostre.** *The Brown-headed Tree-Babbler.*

Alcippe magnirostris, *Moore, P. Z. S.* 1854, p. 277; *Horsf. & M. Cat.* i, p. 407.
Malacopteron magnirostris (*Moore*), *Hume & Dav. S. F.* vi, p. 274; *Hume Cat.* no. 396 quint.
Malacopterum magnirostre (*Moore*), *Oates, B. B.* i, p. 56.
Turdinus magnirostris (*Moore*), *Sharpe, Cat. B. M.* vii, p. 547.

*Coloration.* Forehead, crown, nape, and back olive-brown, the feathers of the forehead with black shafts; wing-coverts and exposed parts of quills rufescent olive; upper tail-coverts and tail bright chestnut-brown; feathers round the eye white; lores and an obsolete stripe over the eye grey; cheeks and ear-coverts deep ashy, the latter with whitish shafts; entire lower plumage dull white, washed with ashy across the breast and on the flanks, thighs, and under tail-coverts.

Legs, feet, and claws pale bluish, sometimes a little darker and more plumbeous; upper mandible dark horny brown, almost black in some; lower mandible bluish white, pale blue, or plumbeous; gape dull yellow; iris red, varying from cinnabar to lake, and lake to crimson (*Hume & Davison*).

Length about 7; tail 2·6; wing 3·2; tarsus ·85; bill from gape ·8.

*Distribution.* The extreme south of Tenasserim, extending into the Malayan peninsula and Cochin China.

*Habits, &c.* Arboreal like those of the last species.

*M. cinereum* is not unlikely to be found in Tenasserim. It is allied to *M. magnum*, but the ferruginous feathers of the head are broadly terminated with black, and it is of smaller size.

## Genus **ERYTHROCICHLA**, Sharpe, 1883.

This genus resembles the last in general structure, but has a shorter wing, and it appears to be a ground-bird. Only one species is known.

### 158. **Erythrocichla bicolor.** *The Ferruginous Babbler.*

Brachypteryx bicolor, *Less. Rev. Zool.* 1839, p. 138.
Malacopteron ferruginosum, *Blyth, J. A. S. B.* xiii, p. 383 (1844); *Hume & Dav. S. F.* vi, p. 273; *Hume, Cat.* no. 396 quat.
Trichastoma bicolor (*Less.*), *Blyth, Cat.* p. 147; *Horsf. & M. Cat.* i, p. 226.
Trichostoma ferruginosum (*Blyth*), *Blyth, Ibis,* 1865, p. 47; *Oates, B. B.* i, p. 58.
Erythrocichla bicolor (*Less.*), *Sharpe, Cat. B. M.* vii, p. 551.

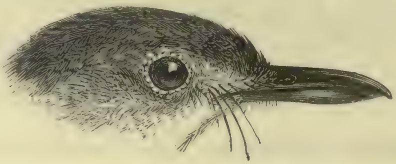

Fig. 43.—Head of *E. bicolor.*

*Coloration.* The whole upper plumage ferruginous, the crown brighter; upper tail-coverts and tail chestnut; lores dull white or pale fulvous; sides of the head like the crown; lower plumage white, suffused with brownish on the breast and less so on the sides of the body.

Legs and feet fleshy white; upper mandible dirty white, lower dark brown; iris pale wood-brown (*Hume & Davison*).

Length about 6·5; tail 2·4; wing 3·1; tarsus 1·1; bill from gape ·9.

*Distribution.* The extreme south of Tenasserim, extending down to the Malay peninsula and to Sumatra and Borneo.

*Habits, &c.* According to Davison this bird is strictly a ground-bird, only flying up into trees when disturbed.

## Genus **TRICHOSTOMA**, Blyth, 1842.

The type of the genus *Trichostoma* is a bird which for many years after Blyth's institution of the genus remained unknown to ornithologists, or rather was known only by various names which were not recognized as synonymous with Blyth's until I worked up the subject for my 'Birds of Burmah.'

*Trichostoma* has remarkably long rictal bristles, but does not otherwise differ much from the preceding genera except in having a conspicuously shorter tail. It is in great measure arboreal. Many birds have been placed in this genus which have no connection or affinities with it.

### 159. **Trichostoma rostratum.** *Blyth's Babbler.*

Trichastoma rostratum, *Blyth, J. A. S. B.* xi, p. 795 (1842); *id. Cat.* p. 147; *Hume, S. F.* viii, pp. 60, 160; ix, pp. 109, 127; *Oates, B. B.* i, p. 56; *Sharpe, Cat. B. M.* vii, p. 562.

Napothera umbratilis, *Strickl. Contr. Orn.* 1849, p. 128, pl. 31.

Brachypteryx macroptera, *Salvadori, Atti R. Ac. Sc. Tor.* iii, p. 528 (1868).

Brachypteryx buxtoni, *Wald. P. Z. S.* 1877, p. 367; *id. Ibis*, 1877, p. 308, pl. 6, fig. 2.

*Coloration.* Whole upper plumage rufescent olive-brown, tinged with ferruginous on the upper tail-coverts and outer webs of tail-feathers; lores whitish, mottled with black; ear-coverts and round the eye rufescent; the former with whitish shafts; cheeks white, with black shafts and tips; entire lower plumage white, washed with pale grey across the breast and suffused with ashy brown on the sides of the breast and abdomen; outer webs of wing-quills like the back.

Upper mandible dark brown; lower pale plumbeous blue; legs and feet rather dark pinkish fleshy; iris pale red-brown; claws pale horny brown (*Davison*).

Length about 6·5; tail 2·1; wing 2·9; tarsus 1·05; bill from gape ·9.

*Distribution.* The extreme south of Tenasserim, extending to Sumatra and Borneo.

*Habits, &c.* Nothing is known of this bird's habits beyond Hume's assertion that they are arboreal.

## Genus **TURDINUS**, Blyth, 1844.

The genus *Turdinus* differs from all the other genera of this subfamily with stout straight bills in having the nostrils oval and exposed, not protected by a membrane. As restricted here, it contains but one Indian species. This has a very short tail.

### 160. **Turdinus abbotti.** *Abbott's Babbler.*

Malacocincla abbotti, *Blyth, J. A. S. B.* xiv, p. 601 (1845).
Trichastoma abbotti (*Blyth*), *Blyth, Cat.* p. 147; *Horsf. & M. Cat.* i, p. 405; *Jerd. B. I.* ii, p. 17; *Oates, S. F.* v, p. 151; *Tweedd. Ibis*, 1877, p. 452, pl. xi, fig. 2; *Hume & Dav. S. F.* vi, pp. 259, 513; *Cripps, S. F.* vii, p. 277; *Hume, Cat.* no. 387; *id. S. F.* xi, p. 138.
Malacopteron olivaceum, *Strickland, A. M. N. H.* (1) xix, p. 132 (1847); *Hume, S. F.* ix, p. 108.
Turdinus abbotti (*Blyth*), *Oates, B. B.* i, p. 58; *Sharpe, Cat. B. M.* vii, p. 541; *Oates in Hume's N. & E.* 2nd ed. i, p. 103.

*The Brown-backed Tit-Babbler*, Jerd.

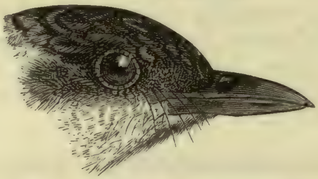

Fig. 44.—Head of *T. abbotti.*

*Coloration.* Whole upper plumage rich olive-brown, the forehead with fulvous streaks, the shafts of the feathers of the other parts pale; outer webs of the quills of the wing like the back; upper tail-coverts and tail deep rufous; lores, round the eye, and a short supercilium dark grey; ear-coverts rufous with fulvous shafts; chin, throat, and cheeks pale grey; sides of neck and of the breast and body earthy ferruginous; centre of breast and abdomen whitish; under tail-coverts bright ferruginous.

Iris reddish brown; eyelids deep plumbeous; upper mandible dark brown, except the tip and the terminal third of the margins, which, together with the lower mandible, are pale bluish; mouth yellow; legs and feet pinkish fleshy; claws pale horn-colour.

Length about 6·5; tail 2; wing 2·9; tarsus 1; bill from gape ·9.

*Distribution.* The lower hills and valleys of Nepal and Sikhim; the eastern portion of Bengal; the Bhutan doars; Assam, and the whole of the countries to the south to Arrakan and Tenasserim, extending down the Malay peninsula.

*Habits, &c.* This bird must be looked for in the very thickest of brushwood in evergreen tracts of forest; consequently there are large areas of country in which it is absent. It occurs singly or in pairs, but in suitable places the birds are so common that they appear to be gregarious, though in reality they are not so. They creep about bushes and low trees and also feed on the ground. Their note is very pretty and constantly uttered during the breeding-season in May and June. The nest is a cup made of dry leaves and placed in low bushes near the ground. The eggs, three in number, are very beautiful, being pinkish white, streaked and spotted with brownish red. They measure about ·85 by ·65.

## Genus **THRINGORHINA**, n. gen.

The two birds for which the above generic name is proposed, in addition to a peculiar style of coloration, are characterized by the very large operculum over the nostril. The bill is very strong, with the culmen gently curved throughout, and the rictal bristles are weak. The feathers of the forehead are harsh to the touch. The feathers of the crown are somewhat ample, and no doubt in life when erected form a short crest, as represented by Godwin-Austen in his plate of *T. oglii*.

The type of this genus is *T. guttata*, which I at one time classed with *Stachyrhis*, but erroneously as I now see.

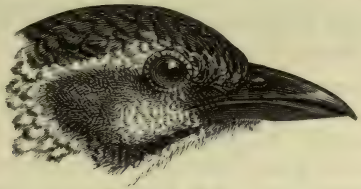

Fig. 45.—Head of *T. guttata*.

### *Key to the Species.*

*a.* Wings and tail plain ........................ *T. guttata*, p. 155.
*b.* Wings and tail barred with brown ............ *T. oglii*, p. 156.

### 161. **Thringorhina guttata.** *Tickell's Spotted Babbler.*

Turdinus guttatus (*Tick.*), *Blyth, J. A. S. B.* xxviii, p. 414 (1859); *Tick. J. A. S. B.* xxviii, p. 450; *Blyth, Birds Burm.* p. 115; *Walden, Ibis*, 1876, p. 353; *Hume & Dav. S. F.* vi, p. 264; *Hume, Cat.* no. 390 sex.; *Bingham, S. F.* ix, p. 179.
Stachyrhis guttata (*Tick.*), *Oates, S. F.* v, p. 251; *id. B. B.* i, p. 49; *Sharpe, Cat. B. M.* vii, p. 535.

*Coloration.* Lores and forehead white, with black streaks; round the eye black; a large patch of white below the eye, bounded by a black moustachial streak; ear-coverts ashy brown; a white supercilium to the nape, bordered above by black; sides of neck and the terminal portions of the feathers of the mantle black, with long oval white drops; remaining upper plumage rich golden brown, the rump, tail, and the outer webs of the quills of the wing tinged with deep rufous; chin and upper throat white; remainder of lower parts ruddy ferruginous, the flanks and under tail-coverts tinged with olivaceous, the breast with very narrow obsolete white margins to the feathers, which, with those of the abdomen, have also whitish shafts.

Legs and feet pale dingy green; lower mandible and edge of upper along commissure plumbeous; rest of bill black; iris crimson-lake (*Hume & Davison*).

Length nearly 7; tail 2·2; wing 2·7; tarsus 1; bill from gape ·9.

*Distribution.* The slopes of Muleyit mountain at Meetan; the Thoungyeen river; Malawún, at the extreme south of Tenasserim.

*Habits, &c.* Davison tells us that this bird is in general an inhabitant of forests, whether composed of thick jungle or more open bamboo vegetation, and that it apparently never descends to the ground.

### 162. **Thringorhina oglii.** *Austen's Spotted Babbler.*

Actinura oglei, *Godwin-Austen, J. A. S. B.* xlvi, pt. ii, p. 42 (1877); *Hume, S. F.* v, p. 341; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 18, pl. xi.

Actinodura oglei (*Godw.-Aust.*), *Hume, Cat.* no. 427 quat.; *Sharpe, Cat. B. M.* vii, p. 467; *Hume, S. F.* xi, p. 171.

*Coloration.* Crown, nape, and hind neck rich golden brown; back, rump, scapulars, and upper tail-coverts the same but duller, and obsoletely cross-rayed; wings and tail umber-brown, narrowly and closely cross-barred with blackish brown; forehead white, with black shafts continued back as a broad supercilium to the sides of the neck, where the white band expands and becomes divided into white spots bordered by black; the forehead and supercilium bordered by black above; lores and ear-coverts black; cheeks, chin, and throat white; breast grey; remainder of lower plumage dull umber-brown.

Bill black above, grey below; iris crimson-lake; legs and feet umber-brown (*Godwin-Austen*).

Length about 6·5; tail 2·5; wing 2·8; tarsus 1·1; bill from gape ·95.

*Distribution.* Discovered at Manbum Tila on the Tengapani river near Sadiya. It has not again been obtained by any naturalist.

## Genus **ALCIPPE**, Blyth, 1844.

The genus *Alcippe* contains three Indian species which are very closely allied and somewhat difficult to separate. The colour of the plumage is dull.

In this genus the wing and tail are about equal in length; the bill is notched, and the nostrils are overhung by some long hairs springing from the base of the forehead. The tail is but slightly graduated.

### *Key to the Species.*

*a.* Wing 2·3; a circle of white feathers round eye; supercilium distinct and extending as a band to upper back .................... *A. nepalensis*, p. 156.

*b.* Wing 2·8; no circle of white feathers round eye.

| | |
|---|---|
| *a'*. No trace of a supercilium | *A. phæocephala*, p. 158. |
| *b'*. Traces of a supercilium produced as a band on upper back | *A. phayrii*, p. 158. |

### 163. **Alcippe nepalensis.** *The Nepal Babbler.*

Siva nipalensis, *Hodgs. Ind. Rev.* p. 89 (1838).

Alcippe nipalensis (*Hodg.*), *Blyth, Cat.* p. 148; *Horsf. & M. Cat.* i, p. 226; *Jerd. B. I.* ii, p. 18; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 103; *Hume, N. & E.* p. 240; *Hume & Dav. S. F.* vi, p. 260; *Hume, Cat.* no. 388; *Scully, S. F.* viii, p. 287; *Oates, B. B.* i, p. 68; *Sharpe, Cat. B. M.* vii, p. 620; *Hume, S. F.* xi, p. 138; *Oates in Hume's N. & E.* 2nd ed. i, p. 104.

*The Nepal Quaker-Thrush*, Jerd.; *Sam-dayal-pho*, Lepch.

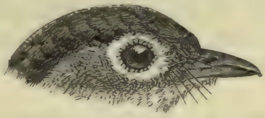

Fig. 46.—Head of *A. nepalensis.*

*Coloration.* Forehead, crown, nape, and upper back ashy brown; sides of the head and of the neck paler ashy brown; a very conspicuous ring of white feathers round the eye; lores grey; a black supercilium commencing narrowly over the eye, widening gradually and extending to the upper back, where it becomes more or less streaky; lower back, scapulars, wing-coverts, rump, upper tail-coverts, and tail fulvous brown; wings brown, edged with fulvous on the outer webs; chin whitish; lower plumage pale buff or earthy brown, albescent on the abdomen.

Bill grey or livid horny, the base of the upper mandible and a line along the culmen black; iris hazel-brown; feet livid fleshy; claws grey-horny (*Scully*).

Length about 5; tail 2·4; wing 2·3; tarsus ·8; bill from gape ·55.

This species can be easily separated from *A. phayrii* and *A. phœocephala* by its smaller size, its conspicuous white orbital ring of feathers, and by its long well-marked black supercilia.

*Distribution.* The Himalayas from Nepal to the extreme east of Assam; the Khási and Nága hills; Manipur; the hilly portions of Tenasserim from Karennee and Toungngoo down to Nwalabo mountain. Hume records this bird from the northern portion of the Pegu hills, and Blyth from Arrakan. In the Himalayas it is found up to 5000 feet or more.

*Habits, &c.* This bird is found in thick jungle, feeding on the ground in small parties, and creeping among bushes in search of insects. It has a low twittering note. It breeds from March to May, constructing a small cup-shaped nest of bamboo-leaves and grass in the fork of a bush close to the ground. The eggs, three or four in number, are pinkish, blotched with maroon-red, and measure ·77 by ·58.

### 164. **Alcippe phæocephala.** *The Nilgiri Babbler.*

Thimalia poioicephala, *Jerd. Madr. Journ. L. S.* xiii, p. 169 (1844).
Alcippe poiocephala (*Jerd.*), *Blyth, Cat.* p. 148; *Jerd. B. I.* ii, p. 18; *id. Ibis,* 1872, p. 298; *Hume, N. & E.* p. 240; *id. Cat.* no. 389; *Davison, S. F.* x, p. 374.
Alcippe brucei, *Fairbank MS.**, *Hume, J. A. S. B.* xxxix, pt. ii, p. 122 (1870); *id. S. F.* i, p. 8; *Jerd. Ibis,* 1872, p. 298.
Alcippe phæocephala (*Jerd.*), *Sharpe, Cat. B. M.* vii, p. 622; *Oates in Hume's N. & E.* 2nd ed. i, p. 106.

*The Neilgherry Quaker-Thrush,* Jerd.

*Coloration.* Forehead, crown, and nape ashy brown; the whole upper plumage olive-brown tinged with fulvous, the wings, tail, and upper tail-coverts decidedly ferruginous; sides of the head ashy brown, the shafts of the ear-coverts paler; the entire lower plumage fulvous, paler on the centre of the abdomen.

Iris slaty grey; legs, feet, and claws greyish fleshy; bill horny brown (*Davison*).

Length about 6; tail 2·6; wing 2·8; tarsus ·8; bill from gape ·7.

Birds from the Nilgiris and Travancore have the head very much darker than the rest of the upper plumage; birds from more northern localities have it very little darker than the upper parts in general.

*Distribution.* The western coast of India from Khandála to Travancore, ascending up to 6000 feet of elevation. This Babbler also occurs at Pachmarhi in the Central Provinces. In the British Museum there is an *Alcippe* from Pareshnáth Hill which I am inclined to identity with the present species rather than with *A. phayrii*; but the two species run very close to each other, and it is not always easy to separate them.

*Habits, &c.* There appears to be nothing distinctive in the habits or nidification of this species worthy of note. It breeds from January to June, and the eggs measure ·85 by ·63.

### 165. **Alcippe phayrii.** *The Burmese Babbler.*

Alcippe phayrei, *Blyth, J. A. S. B.* xiv, p. 601 (1845); *id. Cat.* p. 148; *Hume, S. F.* iii, p. 116, v, p. 60; *Hume & Dav. S. F.* vi, p. 260; *Anders. Yunnan Exped., Aves,* p. 635, pl. xlviii; *Hume, Cat.* no. 388 bis; *Oates, B. B.* i, p. 69; *Sharpe, Cat. B. M.* vii, p. 623; *Hume, S. F.* xi, p. 139; *Oates in Hume's N. & E.* 2nd ed. i, p. 108.
Alcippe magnirostris, *Wald. in Blyth, Birds Burm.* p. 115 (1875); *id. Ibis,* 1877, p. 487; *Hume, S. F.* v, p. 56.
Alcippe fusca, *Godwin-Austen, J. A. S. B.* xlv, pt. ii, p. 197 (1876); *Hume, S. F.* v, p. 54; *id. Cat.* no. 388 ter.

*Coloration.* Resembles *A. phæocephala.* Differs in having, as a rule, traces of sincipital brown stripes; in being of a clearer and lighter fulvous below, and in having the cap somewhat better defined from the rest of the upper plumage.

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* I cannot discover where this name was published; the first mention of it, so far as I know, is by Hume (*l. c.*).

Iris whity brown to greyish blue; eyelids plumbeous; mouth yellow; legs and claws dusky flesh-colour; upper mandible dusky brown, the lower one somewhat paler and turning to yellow at the base.

Of the same size as *A. phæocephala*, from which the present species cannot be distinguished by measurement.

Were it not that the geographical distribution of *A. phæocephala* and *A. phayrii* differs so greatly, and that typical examples of the latter from Burma show traces of sincipital stripes, whereas the former never do so, I should be inclined to unite these two species under one name. When the sincipital stripes are absent in *A. phayrii*, as they frequently, or almost invariably, are in specimens from the extreme northern limit of its range, such as Tipperah and Manipur, it is almost impossible to separate such examples from *A. phæocephala*. Failing the sincipital stripes there is really nothing to trust to for discriminating the two species except the colour of the lower plumage and the cap, and this is only apparent when series of each are compared. All authors have hitherto been satisfied with comparing *A. phayrii* with *A. nepalensis*, two birds which are quite distinct, both in coloration and in size, and which cannot be confounded under any circumstances. Sharpe, with the few specimens he had before him when he wrote his 'Catalogue,' made an endeavour to diagnose *A. phayrii* and *A. phæocephala*, the only attempt that has ever been made, I believe; but unfortunately his character, the colour of the ear-coverts, does not hold good, and no use can be made of it.

*Distribution.* The Nága hills; Tipperah; Manipur; the neighbourhood of Bhamo; Arrakan; the Pegu hills; Karennee; the whole of Tenasserim.

*Habits, &c.* This species is found in the better-wooded hilly portions of the country. Its habits do not differ from those of *A. nepalensis*. It breeds in Tenasserim from February to April. The eggs found by Bingham measured ·78 by ·58; these dimensions appear small for the size of the bird, being no larger than those of the eggs of *A. nepalensis*, which is a considerably smaller bird.

## Genus **RHOPOCICHLA**, n. gen.

I propose this generic term (with *R. atriceps* as the type) for three birds which have hitherto been included in *Alcippe*.

This genus differs from *Alcippe* in having the nostrils roundish, exposed, and pierced in the anterior part of the membrane, and in having a much shorter tail when compared with the wing. The eggs of the two genera are also different in colour, a matter which is noticed by Hume in his 'Rough Draft of Nests and Eggs,' in the article on *Alcippe poiocephala*.

*Key to the Species.*

| | |
|---|---|
| *a.* Crown and sides of head black | *R. atriceps*, p. 160. |
| *b.* Forehead and ear-coverts only black | *R. nigrifrons*, p. 160. |
| *c.* Ear-coverts only blackish | *R. bourdilloni*, p. 161. |

### 166. **Rhopocichla atriceps.** *The Black-headed Babbler.*

Brachypteryx atriceps, *Jerd. Madr. Journ. L. S.* x, p. 250 (1839).
Alcippe atriceps (*Jerd.*), *Blyth, Cat.* p. 148; *Jerd. B. I.* ii, p. 19; *Hume, Cat.* no. 390; *Butler, S. F.* ix, p. 399; *Davison, S. F.* x, p. 375; *Sharpe, Cat. B. M.* vii, p. 625; *Barnes, Birds Bom.* p. 175.
Rhopocichla atriceps (*Jerd.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 109.

*The Black-headed Wren-Babbler*, Jerd.

*Coloration.* Forehead, crown, nape, ear-coverts, and under the eye black; the whole upper plumage fulvous brown; lower plumage dull white, changing to olivaceous on the flanks and under tail-coverts; the exposed parts of the closed wings and tail like the back.

Iris bright yellow; the lower mandible and the commissure of the upper fleshy pink; rest of the upper mandible dull black; legs, feet, and claws sometimes pale plumbeous, sometimes pure fleshy pink, at other times pink more or less strongly tinged with purple (*Davison*).

Length about 5·5; tail 2; wing 2·3; tarsus ·9; bill from gape ·7.

*Distribution.* The Nilgiris and the western coast of India up to Belgaum. This Babbler is found up to 5000 feet or even higher.

*Habits, &c.* Davison remarks that this bird goes about in larger or smaller parties and seems to prefer bamboo and scrub jungle. It breeds in May, June, and July, constructing an egg-shaped nest of blades of grass in clumps of bamboo or among weeds near the ground. The eggs, two or three in number, are white speckled with brownish and purplish red, and measure ·77 by ·55.

### 167. **Rhopocichla nigrifrons.** *The Black-fronted Babbler.*

Alcippe nigrifrons, *Blyth, J. A. S. B.* xviii, p. 815 (1849); *id. Cat.* p. 340; *Legge, S. F.* iii, p. 367; *Hume, S. F.* vii, p. 383; *id. Cat.* no. 390 ter; *Legge, Birds Ceyl.* p. 507, pl. xxvii, figs. 2 & 3; *Sharpe, Cat. B. M.* vii, p. 625.
Rhopocichla nigrifrons (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 110.

*Batitchia*, Ceyl.

*Coloration.* Forehead, ear-coverts, and all round the eye black, the shafts of the feathers of the forehead glistening; the whole upper plumage, sides of neck, and visible portions of the wings and tail rufous-brown, darkest on the crown; lower plumage, cheeks, and under the ear-coverts dull white, tinged with olivaceous on the sides of the breast and body; vent, thighs, and under tail-coverts rufous-brown; the feathers of the cheeks with lengthened black shafts; under wing-coverts pale fulvous.

Iris yellowish white or very pale yellow; bill, gape, and culmen dark brown, margins of the upper and lower mandibles fleshy; legs and feet fleshy lavender; claws dusky; iris of young olive (*Legge*).

Length nearly 5·5; tail 2; wing 2·3; tarsus ·85; bill from gape ·7.

*Distribution.* Ceylon.

*Habits, &c.* According to Legge this bird breeds in Ceylon in January. The nest is a large shapeless ball of dead leaves and a few twigs, placed in a bramble or some undergrowth three or four feet from the ground. The eggs are white spotted with brownish red over bluish-grey specks, and measure ·74 by ·56.

The same author observes that this species frequents dense underwood in parties of six to a dozen, searching for food among the fallen leaves, and that it keeps up a constant little rattle-note.

### 168. **Rhopocichla bourdilloni.** *Bourdillon's Babbler.*

Alcippe bourdilloni, *Hume, S. F.* iv, pp. 399, 485 (1876); *id. Cat.* no. 390 bis; *Bourdillon, S. F.* ix, p. 300; *Sharpe, Cat. B. M.* vii, p. 626.

*Coloration.* Forehead, crown and nape, lores and cheeks brown; ear-coverts and round the eye blackish; upper plumage, wings, tail, and sides of the neck fulvous brown; chin, throat, and breast dull white; remainder of the lower plumage ferruginous; under wing-coverts pale fulvous.

Bill above black, below pale slaty; legs and feet dull brown; iris white (*Hume Coll.*).

Length about 5·3; tail 1·9; wing 2·2; tarsus ·9; bill from gape ·7.

*Distribution.* Known only from Mynall in Travancore at an elevation of about 3000 to 4000 feet.

## Genus **STACHYRHIS**, Hodgs., 1844.

With the genus *Stachyrhis* we enter upon a group of small Timeliine birds which have a slender pointed bill and rather brilliant plumage. This genus is the only one of the subfamily in which the eggs are known to be unspotted white, and it differs from the allied genus *Stachyrhidopsis*, in which the eggs are spotted, by having the culmen gently curved. The nostril is covered by a large scale somewhat as in *Thringorhina*.

The birds of this genus appear to confine themselves to low trees and bushes, the leaves and flowers of which they search for insects, and frequently their foreheads are powdered with the pollen of flowers. Their notes are described as pleasant.

*S. poliogaster*, a species discovered by Davison and named by Hume, from the Malay peninsula, has the sides of the face and the lower plumage grey, and may be discovered in Tenasserim.

### *Key to the Species.*

| | |
|---|---|
| *a.* Crown black streaked with white .......... | *S. nigriceps*, p. 162. |
| *b.* Crown golden yellow streaked with black. | |
| *a′.* Back bright olive-yellow................ | *S. chrysæa*, p. 163. |
| *b′.* Back slaty green ...................... | *S. assimilis*, p. 163. |

### 169. **Stachyrhis nigriceps.** *The Black-throated Babbler.*

Stachyris nigriceps, *Hodgs. Blyth, J. A. S. B.* xiii, p. 378 (1844); *Hodgs. in Gray's Zool. Misc.* p. 83 (1844); *id. P. Z. S.* 1845, p. 22; *Blyth, Cat.* p. 150; *Horsf. & M. Cat.* i, p. 231; *Jerd. B. I.* ii, p. 21; *Hume, N. & E.* p. 242; *id. S. F.* iii, p. 117; *Oates, S. F.* v, p. 252; *Anders. Yunnan Exped., Aves,* p. 636; *Hume & Dav. S. F.* vi, p. 264; *Hume, Cat.* no. 391; *Oates, S. F.* x, p. 206; *id. B. B.* i, p. 48; *Sharpe, Cat. B. M.* vii, p. 532; *Hume, S. F.* xi, p. 141; *Oates in Hume's N. & E.* 2nd ed. i, p. 110.

*The Black-throated Wren-Babbler,* Jerd.; *Sangriam-pho,* Lepch.

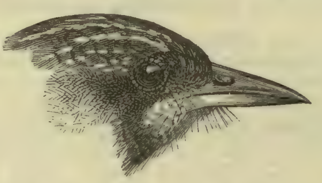

Fig. 47.—Head of *S. nigriceps.*

*Coloration.* Forehead, crown, and nape black, the feathers edged with white, giving a streaked appearance to those parts; round the eye white; ear-coverts varying from orange to rufous-brown and plain brown; cheeks white; chin grey; throat sometimes entirely black, sometimes black mottled with white; whole upper plumage rich olive-brown, the tail and exposed parts of wings rufous; entire lower plumage bright fulvous, tinged with olivaceous on the lower abdomen, flanks, and under tail-coverts.

The colour of the ear-coverts varies somewhat according to locality. Birds from the Himalayas have them dark brown with the posterior portion rufous; those from Assam, the hill-tracts of Bengal, and Upper Burma orange or rufous in some form or other; and Pegu and Tenasserim birds have them rufous but more or less intermingled with brown.

The black throat occurs chiefly among birds from Assam, the hill-tracts of Bengal and Upper Burma.

Hume is of opinion that the colour of the bill changes in the breeding-season. He states that in the cold season (November to February) the upper mandible is pale brown, the lower pale yellowish horny. I can find no indication of this seasonal change in the large series now in the British Museum, but perhaps it is not apparent in dry skins.

Upper mandible bluish black, lower pale bluish; the anterior half of the margins dusky; eyelids bluish; iris orange-brown; legs pale dusky green; claws yellowish (April).

Length about 5·5; tail 2; wing 2·2; tarsus ·85; bill from gape ·75.

*Distribution.* The Himalayas from Nepal to the extreme east of Assam and thence south through all the States and hill-tracts of Eastern Bengal to Arrakan, Pegu, and Tenasserim. This species appears to be found up to 10,000 feet of elevation in summer.

*Habits, &c.* Breeds from March to June, constructing a domed nest of grass and leaves on the ground generally on banks. The eggs measure ·76 by ·58.

### 170. **Stachyrhis chrysæa.** *The Golden-headed Babbler.*

Stachyris chrysæa, *Hodgs., Blyth, J. A. S. B.* xiii, p. 379 (1844); *Hodgs. in Gray's Zool. Misc.* p. 83 (1844); *id. P. Z. S.* 1845, p. 23; *Blyth, Cat.* p. 150; *Horsf. & M. Cat.* i, p. 232; *Jerd. B. I.* ii, p. 22; *Hume, N. & E.* p. 245; *Anders. Yunnan Exped., Aves,* p. 636; *Hume, Cat.* no. 394; *id. S. F.* xi, p. 142; *Oates in Hume's N. & E.* 2nd ed. i, p. 112.

Stachyridopsis chrysæa (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 601; *Oates, B. B.* i, p. 52.

*The Golden-headed Wren-Babbler,* Jerd.; *Syak-birang-pho,* Lepch.

*Coloration.* Forehead just above the lores pure yellow; lores, in front of the eye, and a short moustachial streak black; ear-coverts oil-yellow; forehead, crown, and nape bright golden-yellow, streaked with black; upper plumage and exposed parts of wings bright olive-yellow; tail brown, washed with yellow on the outer webs; sides of neck like the back; entire lower plumage bright yellow.

Bill plumbeous; legs pale brownish yellow; iris light brown (*Jerdon*).

Length about 4·5; tail 2; wing 2; tarsus ·75; bill from gape ·55.

*Distribution.* Nepal, Sikhim, Bhutan, and Assam; Khási hills; Manipur; the neighbourhood of Bhamo; probably Arrakan; up to 5000 feet elevation. A specimen from Perak in the British Museum is referable to this species.

*Habits, &c.* Gammie found a nest in Sikhim in May—an oval structure made of bamboo-leaves and fixed vertically between some upright branchlets within two feet of the ground. The eggs measure ·63 by ·48.

### 171. **Stachyrhis assimilis.** *The Allied Babbler.*

Strachyrhis assimilis, *Wald. in Blyth's Birds Burm.* p. 116 (1875); *Hume, S. F.* v, p. 56; *Hume & Dav. S. F.* vi, pp. 265, 514; *Hume, Cat.* no. 394 bis.

Stachyris bocagei, *Salvadori, Ann. Mus. Civ. Gen.* (1) xiv, p. 223 (1879).

Stachyridopsis assimilis (*Wald.*), *Sharpe, Cat. B. M.* vii, p. 602; *Oates, B. B.* i, p. 53; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 605.

*Coloration.* Resembles *S. chrysæa.* Differs in having the whole upper plumage dull green, tinged with ashy or slaty on the back, the yellow on the crown quite pale, and the lower plumage entirely dull yellow. Of the same size as *S. chrysæa.*

Legs and feet fleshy yellow; upper mandible brown; lower pale plumbeous, fleshy at base; iris deep red-brown (*Davison*). Iris lake; bill lavender, pink at base; legs brownish yellow; feet greenish (*Wardlaw Ramsay*).

*Distribution.* There are undoubted specimens of this species in the Hodgson collection, either from Nepal or Sikhim; there is also in the British Museum a specimen from Assam; the bird is known from Karennee, and from Muleyit and Nwalabo mountains in Tenasserim; it also occurs in the mountains of Sumatra.

## Genus **STACHYRHIDOPSIS**, Sharpe, 1883.

This genus differs from *Stachyrhis* in having the culmen perfectly straight and, as before remarked, in laying spotted eggs.

The habits do not differ from those of *Stachyrhis*, so far as can be judged from the meagre information on record.

### *Key to the Species.*

| | |
|---|---|
| *a.* Crown chestnut. | |
| *a'.* Throat yellow with black shafts .......... | *S. ruficeps*, p. 164. |
| *b'.* Throat whitish with black shafts .......... | *S. rufifrons*, p. 165. |
| *b.* Crown fulvous, chin black .................. | *S. pyrrhops*, p. 165. |

### 172. **Stachyrhidopsis ruficeps.** *The Red-headed Babbler.*

Stachyris ruficeps, *Blyth, J. A. S. B.* xvi, p. 452 (1847); *id. Cat.* p. 150; *Horsf. & M. Cat.* i, p. 409; *Jerd. B. I.* ii, p. 22; *Hume, N. & E.* p. 244; *Hume & Dav. S. F.* vi, p. 265; *Hume, Cat.* no. 393; *Brooks, S. F.* viii, p. 471.

Stachyris præcognitus, *Swinhoe, Ibis,* 1866, p. 310; *id. P. Z. S.* 1871, p. 373.

Stachyridopsis ruficeps (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 598; *Oates in Hume's N. & E.* 2nd ed. i, p. 112.

*The Red-headed Wren-Babbler,* Jerd.; *Syak-birang-pho,* Lepch.

*Coloration.* Forehead, crown, and nape chestnut, the frontal feathers with indications of black shafts; upper plumage, tail, and exposed parts of wings olive-green; chin and upper throat pale yellow, with conspicuous black shafts; sides of the head and neck and entire lower plumage fulvous yellow, the sides of the body, thighs, vent, and under tail-coverts tinged with olivaceous.

Bill plumbeous above, reddish beneath; legs pale yellow-brown; iris light brown (*Jerdon*).

Length about 5; tail 2; wing 2·1; tarsus ·8; bill from gape ·65.

*Distribution.* Nepal; Sikhim; Dibrugarh in Assam; extending into China.

*Habits, &c.* Brooks observes that this bird, so long as it finds dense cover, is indifferent about elevation. It has a low soft whistle. It breeds from April to June, constructing a nest of bamboo-leaves in bushes a few feet from the ground. The nest is generally domed, but not always. The eggs, which are white speckled with reddish, measure ·68 by ·52.

### 173. **Stachyrhidopsis rufifrons.** *Hume's Babbler.*

Stachyris rufifrons, *Hume, S. F.* i, p. 479 (1873), iii, p. 117; *Wald. in Blyth's Birds Burm.* p. 116; *Brooks, S. F.* iv, p. 274; *Hume, S. F.* iv, p. 501; *Hume & Dav. S. F.* vi, p. 265; *Hume, Cat.* no. 393 bis; *Bingham, S. F.* ix, p. 179; *Hume, S. F.* xi, p. 141.

Stachyridopsis rufifrons (*Hume*), *Sharpe, Cat. B. M.* vii, p. 599; *Oates, B. B.* i, p. 54.

*Coloration.* Resembles *S. ruficeps.* Differs in having the chin and upper throat white, with black shafts, the sides of the head decidedly ashy, with the lores and a ring round the eye conspicuously paler, and the rufous on the crown duller and not extending to the nape.

Bill blue; iris deep red; eyelids plumbeous; legs fleshy brown; claws pale horn-colour.

Length nearly 5; tail 1·9; wing 2·1; tarsus ·7; bill from gape ·55.

*Distribution.* The lower hills of Sikhim, the Bhutan Doars, and Assam up to Dibrugarh; thence down to Pegu and Tenasserim, through the hill-tracts of Eastern Bengal and Upper Burma. This species has also been found in Karennee. It is very sparingly spread over the above area and is nowhere common.

### 174. **Stachyrhidopsis pyrrhops.** *The Red-billed Babbler.*

Stachyris pyrrhops, *Hodgs., Blyth, J. A. S. B.* xiii, p. 379 (1844); *Hodgs. in Gray's Zool. Misc.* p. 83 (1844); *id. P. Z. S.* 1845, p. 23; *Blyth, Cat.* p. 150; *Horsf. & M. Cat.* i, p. 232; *Jerd. B. I.* ii, p. 21; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 36; *Cock & Marsh. S. F.* i, p. 354; *Hume, N. & E.* p. 243; *Brooks, S. F.* iii, p. 237; *Hume, Cat.* no. 392.

Stachyridopsis pyrrhops (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 600; *Oates in Hume's N. & E.* 2nd ed. i, p. 114.

*The Red-billed Wren-Babbler*, Jerd.

*Coloration.* Forehead and anterior half of crown fulvous, blending with the olive-brown of the upper plumage, the feathers of the forehead, crown, and mantle dark-shafted; lores and chin black, the lower portion of the latter barred with white; sides of the head fulvous; lower plumage rather brighter fulvous, the sides of the body, flanks, thighs, and under tail-coverts tinged with olivaceous.

Upper mandible dark brown, lower fleshy pink tinged blue; legs, feet, and claws brownish fleshy; iris red (*Hume Coll.*). Iris blood-red; bill sordid sanguine (*Jerdon*).

Length about 5; tail 2·2; wing 2·1; tarsus ·7; bill from gape ·65.

*Distribution.* The Himalayas from Murree to Nepal. This species does not appear to occur in Sikhim. It ranges up to 7000 feet.

*Habits, &c.* Breeds in June and probably in other months, making a cup-shaped nest of dry reed-leaves lined with grass in a bush. The eggs are white speckled with reddish, and measure ·66 by ·51.

## Genus **CYANODERMA**, Salvadori, 1874.

This genus differs from the two preceding in having the culmen straight on its basal half and slightly curved on its terminal half. Also in having the orbits naked and of a bright colour in life.

Sharpe (Notes from the Leyden Museum, vi, p. 176) has been persuaded into uniting his genus *Stachyrhidopsis* with *Cyanoderma*; but I am of opinion that the two genera are quite distinct, and the characters pointed out above should be sufficient to differentiate the two.

### 175. **Cyanoderma erythropterum.** *The Red-winged Babbler.*

Timalia erythroptera, *Blyth, J. A. S. B.* xi, p. 794 (1842); *id. Cat.* p. 150; *Horsf. & M. Cat.* i. pp. 229, 420; *Hume, S. F.* iii, p. 322.

Cyanoderma erythropterum (*Blyth*), *Salvad. Ucc. Born.* p. 213; *Tweedd. Ibis,* 1877, p. 308; *Hume & Dav. S. F.* vi, p. 269; *Hume, Cat.* no. 396 bis; *id. S. F.* ix, p. 129; *Oates in Hume's N. & E.* 2nd ed. i, p. 115.

Mixornis erythroptera (*Blyth*), *Oates, B. B.* i, p. 51; *Sharpe, Cat. B. M.* vii, p. 580.

*Coloration.* Forehead, supercilium, ear-coverts, sides of the head and neck, chin, throat, and breast clear plumbeous; abdomen, flanks, vent, and under tail-coverts fulvous brown; upper plumage rufescent brown; wing-coverts, wings, and tail bright ferruginous.

Bill dark plumbeous blue, upper mandible darkest, in some brownish; visible skin of cheeks and orbits from pure light to dull dirty smalt-blue; iris madder-red to deep brown; legs, feet, and claws very pale, almost white, tinged with greenish or yellowish green (*Hume & Davison*).

Length about 5·5; tail 2; wing 2·3; tarsus ·8; bill from gape ·7.

*Distribution.* The extreme south of Tenasserim, ranging down the Malay peninsula to Sumatra and Borneo.

*Habits, &c.* Entirely arboreal. Davison found the nest in April—a round ball of dry reed-leaves in a bush; it did not contain eggs.

## Genus **MIXORNIS**, Hodgs., 1842.

The genus *Mixornis* differs from all the other genera of slender-billed *Timeliinæ* in having the nostrils oval, exposed and not covered by a scale or membrane as in the others.

The two species of *Mixornis* are not very distinct, and it is sometimes difficult to separate them.

*Key to the Species.*

| | |
|---|---|
| *a.* Crown pale ferruginous; streaks on breast confined to shafts | *M. rubricapillus*, p. 167. |
| *b.* Crown chestnut; streaks on breast broad, wider than shaft | *M. gularis*, p. 168. |

### 176. **Mixornis rubricapillus.** *The Yellow-breasted Babbler.*

Motacilla rubicapilla, *Tick. J. A. S. B.* ii, p. 576 (1833).
Mixornis chloris (*Hodgs.*), *Blyth, Cat.* p. 149.
Mixornis rubicapillus (*Tick.*), *Horsf. & M. Cat.* i, p. 229; *Jerd. B. I.* ii, p. 23; *Wald. P. Z. S.* 1866, p. 547; *id. Ibis*, 1872, p. 376; *Hume, N. & E.* p. 245; *Ball, S. F.* ii, p. 408; *Hume, S. F.* iii, p. 118; *Oates, S. F.* v, p. 152; *Anders. Yunnan Exped., Aves*, p. 635; *Hume & Dav. S. F.* vi, pp. 266, 514; *Hume, Cat.* no. 395; *Oates, B. B.* i, p. 50; *Sharpe, Cat. B. M.* vii, p. 578; *Hume, S. F.* xi, p. 142; *Oates in Hume's N. & E.* 2nd ed. i, p. 115.

*The Yellow-breasted Wren-Babbler*, Jerd.

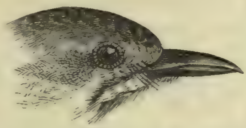

Fig. 48.—Head of *M. rubricapillus*.

*Coloration.* Extreme point of forehead and the lores yellow with black shafts, continued back as a uniform yellow supercilium; crown pale ferruginous, blending on the nape with the olive-green of the upper plumage and sides of neck; ear-coverts dull yellow with pale shafts; cheeks, chin, throat, and upper breast yellow, with black shafts; centre of breast and abdomen plain yellow; remainder of lower plumage dull ashy yellow.

Iris dull white; eyelids plumbeous; bill horny brown; legs fleshy horn-colour; claws yellowish. The iris appears to vary from white to yellow.

Length about 5; tail 2·1; wing 2·3; tarsus ·7; bill from gape ·65.

*Distribution.* Chutia Nagpur; Sikhim and along the base of the Himalayas to the extreme east of Assam, and thence south through Eastern Bengal and its adjacent hill-tracts to Arrakan and Tenasserim, in which latter division this bird is found to a short distance below Tavoy, where it meets the next species.

Hodgson figures this bird (no. 699), but it is not clear whether it occurs in Nepal or not. In the Pinwill Collection, however, there is a specimen from the N.W. Himalayas, and this locality is probably either Kumaon or Garhwal.

*Habits, &c.* This species is usually found in tree- and bush-jungle creeping about the branches, and it does not appear to feed on the ground. I have never seen it except on trees. It has a monotonous note, which is constantly uttered throughout the day. It breeds in May and June, constructing a round nest of grass or bamboo-leaves in a thick bush not many feet above the ground. The eggs, usually three in number, are white speckled with red, and measure ·68 by ·5.

### 177. **Mixornis gularis.** *The Sumatran Yellow-breasted Babbler.*

Motacilla gularis, *Raffl. Trans. Linn. Soc.* xiii, p. 312 (1820).
Mixornis gularis (*Raffl.*), *Blyth, Cat.* p. 149; *Horsf. & M. Cat.* i, p. 229; *Wald. P. Z. S.* 1866, p. 548, 1872, p. 376; *Hume & Dav. S. F.* vi, p. 266; *Hume, Cat.* no. 395 bis; *Oates, B. B.* i, p. 51; *Sharpe, Cat. B. M.* vii, p. 576; *Oates in Hume's N. & E.* 2nd ed. i, p. 116.

*Coloration.* Resembles *M. rubricapillus.* Differs in having the cheeks, chin, throat, and upper breast with broad black shaft-streaks (not black shafts merely); the crown of a chestnut-brown (not pale ferruginous); the upper plumage more rufous, and the exposed parts of the wings castaneous.

Iris pale red-brown; lower mandible and orbital skin pale blue; rest of bill bluish brown; legs and feet greenish brown (*Davison*).

Of very slightly larger size than *M. rubricapillus.*

In addition to the points of difference noted above as existing between this species and *M. rubricapillus*, it should be observed that the iris is red-brown as recorded by Davison.

*Distribution.* Southern Tenasserim from Mergui, extending down the Malay peninsula to Sumatra.

## Genus **SCHŒNIPARUS**, Hume, 1874.

With the genus *Schœniparus* we enter on a group of small birds with short blunt bills like the Tits, and with very strong feet. Their proper position is undoubtedly in this subfamily, both on account of their structure and their habits.

This first genus *Schœniparus* may be separated from the three that follow it, first, by the nostrils being free and not overhung by hairs, and, secondly, by the tail being equal in length to the wing. The bill is also stronger than in the other genera.

*Key to the Species.*

*a.* No chestnut band across throat.
  *a'.* Sides of neck plain .......................... *S. dubius*, p. 168.
  *b'.* Sides of neck streaked.......................... *S. mandellii*, p. 169.
*b.* A chestnut band across throat .............. *S. rufigularis*, p. 170.

### 178. **Schœniparus dubius.** *Hume's Tit-Babbler.*

Proparus dubius, *Hume, Proc. A. S. B.* 1874, p. 107; *id. S. F.* ii,

p. 447; *Wald. in Blyth's Birds Burm.* p. 110; *Davison, S. F.* v, p. 459; *Hume & Dav. S. F.* vi, pp. 372, 519; *Hume, Cat.* no. 622 bis; *Oates, B. B.* i, p. 148.

Minla dubia (*Hume*), *Sharpe, Cat. B. M.* vii, p. 611.

Schœniparus dubius (*Hume*), *Hume, S. F.* ii, p. 449; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 607; *Oates in Hume's N. & E.* 2nd ed. i, p. 117.

*Coloration.* Forehead, crown, and nape reddish brown, each feather obsoletely margined darker, and the forehead tinged with chestnut; lores and a band on each side of the crown, the two bands more or less blending on the upper back, black; a white supercilium commencing at the eye and reaching to the nape; ear-coverts and sides of neck pale fulvous brown; upper plumage olive-brown, tinged with rufous on the exposed parts of the wings and tail; lower plumage pale fulvous, whitish on the chin and throat, suffused with olivaceous on the sides of the breast and abdomen and on the under tail-coverts.

Legs, feet, and claws fleshy; bill dull black or dark brown, generally pale at the base of the lower mandible; iris sometimes yellowish red, sometimes pale yellowish or sienna-brown or slaty-pink (*Hume & Davison*).

Length about 5·5; tail 2·3; wing 2·3; tarsus ·85; bill from gape ·6.

*Distribution.* The northern portion of Tenasserim, where this bird has been procured at Pahpoon, and the central portion, where it has been found on Muleyit mountain at 5000 to 6000 feet of elevation.

*Habits, &c.* Davison informs us that this bird feeds much on the ground and among the low brushwood, entirely on insects. It is by no means shy, and when alarmed utters its note repeatedly. He found the nest on Muleyit, a globular structure of dry reed-leaves lined with fibres, situated on the ground at the base of a plant. The eggs, three in number, are white, spotted with black and smudged with brown, and measure ·78 by ·59.

### 179. **Schœniparus mandellii.** *Mandelli's Tit-Babbler.*

Minla mandellii, *Godwin-Austen, A. M. N. H.* (4) xvii, p. 33 (1876); *Hume, S. F.* iv, p. 490; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, pp. 82, 200, xlvii, p. 25; *id. Ibis,* 1878, p. 116; *Sharpe, Cat. B. M.* vii, p. 610.

Proparus mandellii (*Godw.-Aust.*), *Hume, Cat.* no. 622 ter; *id. S. F.* xi, p. 250.

*Coloration.* Forehead, crown, and nape reddish brown, each feather distinctly margined with dark brown, and the forehead tinged with chestnut; lores and a band on each side of the crown, the two bands more or less blending on the upper back, black; the upper back, the hind neck, and the sides of the neck streaked with fulvous and dark brown or black, the inner webs of the feathers being fulvous, and the outer brown or black; a white supercilium commencing at the eye and reaching to the nape; ear-coverts dark hair-brown; upper plumage olive-brown, tinged with rufous on the exposed parts of the wings and tail; lower plumage pale fulvous, suffused with olivaceous on the sides of the breast and abdomen and on the under tail-coverts.

Legs and feet pale yellowish fleshy-brown; bill black; iris reddish maroon (*Hume*); iris red (*Cockburn*); iris dark red-brown (*Godw.-Aust.*).

Length about 5·5; tail 2·3; wing 2·3; tarsus ·85; bill from gape ·6.

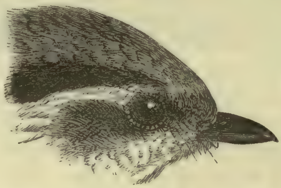

Fig. 49.—Head of *S. mandellii.*

This species differs from *S. dubius* in having the hind neck and the sides of the neck streaked, the crown darker rufous, with more prominent dark edges to the feathers, the ear-coverts much darker brown, and the chin and throat fulvous. A specimen from the pine-forests of the Salween is somewhat intermediate.

*Distribution.* The Daphla, Nága, and Khási hills; Manipur.

*Habits, &c.* Hume observes that this bird keeps in small parties of three to six in number, and haunts the brushwood, balsams, and other plants growing in the deep shade of forests. It is active, nimble, and restless.

### 180. **Schœniparus rufigularis.** *The Red-throated Tit-Babbler.*

Minla rufigularis, *Mandelli, S. F.* i, p. 416 (1873); *Godw.-Aust. A. M. N. H.* (4) xvii, p. 33; *id. J. A. S. B.* xlv, pt. ii, p. 199, xlvii, pt. ii, p. 25; *Hume, Cat.* p. 618 bis; *Sharpe, Cat. B. M.* vii, p. 610; *Hume, S. F.* xi, p. 249.

Alcippe collaris, *Wald. A. M. N. H.* (4) xiv, p. 156 (1874); *Hume, S. F.* iii, p. 281; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 82.

*Coloration.* Forehead, crown, and nape chestnut, bounded on each side by a black band, the two bands blending on the nape; lores and a supercilium, below and next to the black band, white; the upper part of the ear-coverts and a patch below the eye blackish; the lower part of the ear-coverts rufous, connected together by a broad chestnut band across the throat; upper plumage, wings, and tail olive-green, the outer webs of the wings and tail suffused with fulvous; chin, throat, and centre of breast and abdomen white; remainder of the lower plumage olivaceous, tinged with rufous on the under tail-coverts.

Legs and feet pale yellowish horny-brown; bill black; inside of mouth yellow (*Hume*).

Length about 5·5; tail 2; wing 2·1; tarsus ·85; bill from gape ·6.

*Distribution.* The Bhutan doars; Daphla hills; Nága hills; Manipur.

*Habits, &c.* This Tit-Babbler appears to be numerous on the Daphla hills at 3000 feet of elevation. Nothing about its habits is on record.

## Genus SITTIPARUS, n. gen.

The genus for which I propose the name of *Sittiparus* (with *S. cinereus* as the type) contains two birds which are quite different from *Schœniparus* on the one hand, and from *Proparus* and *Lioparus* on the other.

In 1844 (J. A. S. B. xiii, p. 939) Hodgson proposed the name of *Certhiparus* for *S. castaneiceps.* This name had, however, been given by Lafresnaye two years previously to some birds from New Zealand, and Hodgson's name cannot therefore be retained.

*Sittiparus* is one of the genera of Timeliine birds with a Tit-like bill. It differs from *Schœniparus* in having the tail very much shorter than the wing, and from *Proparus* and *Lioparus* in having no hairs overhanging the nostrils.

### *Key to the Species.*

*a.* Head grey; a long black supercilium ........ *S. cinereus,* p. 171.
*b.* Head chestnut; no black supercilium ........ *S. castaneiceps,* p. 172.

### 181. **Sittiparus cinereus.** *The Dusky-green Tit-Babbler.*

Minla cinerea, *Blyth, J. A. S. B.* xvi, p. 449 (1847); *Jerd. B. I.* ii, p. 255; *Godwin-Austen, J. A. S. B.* xxxix, pt. ii, p. 109; *Blanf. J. A. S. B.* xli, pt. ii, p. 166; *Hume, Cat.* no. 620.
Leiothrix cinerea (*Blyth*), *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 367; *Moore, P. Z. S.* 1854, p. 142.

*The Dusky-green Hill-Tit,* Jerd.

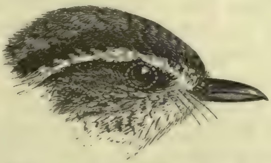

Fig. 50.—Head of *S. cinereus.*

*Coloration.* Upper plumage greyish green, the feathers of the forehead, crown, and nape margined with black; a broad black band on each side of the crown from the forehead to the nape, terminating in a number of streaks on the upper back; a broad pale yellow supercilium from the bill to the nape under the black coronal band; a spot in front of the eye and a band behind, black; ear-coverts mingled greyish and black; cheeks yellow, tipped black; wings and tail suffused on the outer webs of the feathers with the colour of the back; chin, throat, breast, abdomen, and under tail-coverts yellow; sides of neck, breast, and abdomen olivaceous.

Bill dusky; legs fleshy yellow; iris brown (*Jerdon*).

Length about 4·5; tail 1·7; wing 2·3; tarsus ·8; bill from gape ·55.

*Distribution.* Nepal and Sikhim; the Khási hills.

There is nothing on record about the habits of this bird.

### 182. **Sittiparus castaneiceps.** *The Chestnut-headed Tit-Babbler.*

Minla castaniceps, *Hodgs. Ind. Rev.* 1838, p. 33; *Jerd. B. I.* ii, p. 255; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109.

Leiothrix castaniceps (*Hodgs.*), *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 367.

Minla castaneiceps (*Hodgs.*), *Hume, N. & E.* p. 393; *Wald. in Blyth's Birds Burm.* p. 110; *Davison, S. F.* v, p. 459; *Hume & Dav. S. F.* vi, p. 372; *Hume, Cat.* no. 619; *Scully, S. F.* viii, p. 320; *Oates, B. B.* i, p. 146; *Sharpe, Cat. B. M.* vii, p. 608; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 601; *Hume, S. F.* xi, p. 249.

Minla brunneicauda, *Sharpe, Cat. B. M.* vii, p. 609 (1883).

Sittiparus castaneiceps (*Hodgs.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 118.

*The Chestnut-headed Hill-Tit*, Jerd.

*Coloration.* Forehead, crown, and nape chestnut-brown, the feathers of the forehead with broad white streaks, those of the crown and nape with pale rufous streaks; sides of the forehead, lores, a broad supercilium, the ear-coverts, and a patch under the eye white; a spot in front of the eye, a broad streak behind the eye and over the ear-coverts, and a narrow moustachial streak black; back, scapulars, rump, and the smaller wing-coverts olive-green, tinged with fulvous; greater wing-coverts and primary-coverts black; winglet white on the outer webs, black on the inner; the earlier primaries edged with hoary grey, the others and the secondaries edged with chestnut on the base of the outer webs, with olive-green on the other parts; tertiaries broadly edged with olive-green on both webs; chin, throat, breast, abdomen, and under tail-coverts pale fulvous white; sides of breast and body ochraceous; under wing-coverts white.

Upper mandible dusky; the lower livid, yellow at base; iris crimson (in one bird dark brownish red); gape yellow; feet dingy greenish yellow; claws yellowish horny (*Scully*).

Length about 4·5; tail 1·6; wing 2·2; tarsus ·8; bill from gape ·55.

I cannot separate *S. brunneicauda*, and I believe that Sharpe himself does not now consider it distinct.

*Distribution.* Nepal, Sikhim, the Khási and Garo hills, Manipur, Karennee and Muleyit mountain in Tenasserim.

*Habits, &c.* Davison says:—"This little bird was common on the slopes of Muleyit from 3500 feet and upwards, usually going about in flocks of twenty or more, and hunting in a systematic manner amongst the brushwood and trees, peering into every crack and cranny and keeping up the whole time a low twittering."

Two nests of this species were found by Davison on Muleyit mountain in February. In both cases the nests were constructed of green moss lined with fibres and dry leaves, and were cup-shaped. One nest was placed in a masss of creepers about five feet from the ground, and the other in the moss growing on the trunk of a large tree. The eggs were white minutely spotted with black, and three in number in each instance; they measured ·73 by ·57.

## Genus **PROPARUS**, Hodgs., 1841.

The genus *Proparus* is the third of the Timeliine genera with a Tit-like bill. It may be recognized by the hairs which overhang the nostrils, the narrower bill, and the immense hind claw which is as long as the hind toe; the rictal bristles are short. The tail and wing are about equal in length.

This genus agrees in every minute particular with *Fulvetta* of David and Oustalet, which was instituted for some birds from the mountains of China.

### 183. **Proparus vinipectus.** *The Plain-brown Tit-Babbler.*

Siva vinipectus, *Hodgs. Ind. Rev.* 1838, p. 89.
Leiothrix vinipectus (*Hodgs.*), *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 368.
Proparus vinipectus (*Hodgs.*), *Jerd. B. I.* ii, p. 257; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 50; *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 169; *Hume, N. & E.* p. 394; *id. Cat.* no 622; *Oates in Hume's N. & E.* 2nd ed. i, p. 119.
Alcippe vinipectus (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 619.

*The Plain Brown Hill-Thrush*, Jerd.

*Coloration.* Forehead, crown, nape, back, and scapulars vinous brown; lores dusky; a very broad white supercilium to the nape, bordered above by a black band reaching beyond the nape, which tends to meet its fellow on the upper back; rump and upper wing- and tail-coverts ferruginous; tail brown, washed with ferruginous on the base and the outer webs; the earlier primaries edged with hoary grey, the next few entirely black on the outer webs, the remaining quills ferruginous on the outer webs; ear-coverts and cheeks vinous brown like the crown; chin, throat, and upper breast white, with indistinct dusky streaks; lower breast vinous; abdomen, flanks, and under tail-coverts fulvous.

Bill and legs fleshy brown (*Jerdon*); iris dark brown (*Hume Coll.*); iris pale ochre; legs and feet pale umber-grey (*Godw.-Aust.*); iris yellow, with a reddish tinge; legs livid; bill dusky above, livid below (*Blanf.*).

Length about 4·8; tail 2·2; wing 2·3; tarsus ·9; bill from gape ·5.

*Distribution.* The Himalayas from the Sutlej valley to Sikhim up to elevations of 11,000 feet or more; Japvo peak, Burrail range at 9000 feet.

*Habits, &c.* Of this bird nothing is recorded except the nidification. It breeds in Sikhim in May and June, constructing a cup-shaped nest of grass and bamboo-leaves in the branches of dense brushwood not much above the ground. One egg described by Hume was pale green with sepia marks, and measured ·73 by ·55.

## Genus **LIOPARUS**, n. gen.

I propose the name of *Lioparus* for the last of the four genera of Tit-like *Timeliinæ*, with *L. chrysæus* as the type, a bird which has been placed in the genus *Proparus* by most authors.

*Lioparus* differs from *Schœniparus* and *Sittiparus* by having numerous hairs overhanging the nostrils, and from *Proparus* by its long rictal bristles which reach nearly to the tip of the bill, by its broader bill, and by its much smaller hind claw, which measures much less than the hind toe.

The plumage of this bird is remarkably sleek and soft.

### 184. **Lioparus chrysæus.** *The Golden-breasted Tit-Babbler.*

Proparus ? chrysæus, *Hodgs. in Gray's Zool. Misc.* p. 84 (1844).
Proparus chrysotis (*Hodgs.*), *Blyth, J. A. S. B.* xiii, p. 938 (1844).
Leiothrix chrysotis (*Hodgs.*), *Blyth, Cat.* p. 100.
Leiothrix chrysœus (*Hodgs.*), *Horsf. & M. Cat.* i, p. 367.
Proparus chrysæus (*Hodgs.*), *Jerd. B. I.* ii, p. 256; *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 82; *Hume, N. & E.* p. 394; *id. Cat.* no. 621; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 19; *Hume, S. F.* xi, p. 250.
Alcippe chrysæa (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 627.
Lioparus chrysæus (*Hodgs.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 120.

*Prong-samyer-pho,* Lepch.

*Coloration.* Forehead, crown, nape, and lores soft blackish ashy; ear-coverts, cheeks, and a ring round the eye silvery white, the first streaked with ashy; back and scapulars ashy olive; rump and upper tail-coverts olive-green; tail brown, the basal two thirds of the outer webs of all the feathers margined with orange-yellow; wing-coverts black; wings dark brown, the first five primaries edged with orange-yellow; the secondaries all broadly margined with orange-yellow and tipped white; tertiaries broadly margined with white interiorly; chin and throat silvery ashy brown; remainder of lower plumage bright orange-yellow

Bill plumbeous; legs pale fleshy; iris brown (*Jerdon*).

Length about 4·5; tail 1·9; wing 2·1; tarsus ·8; bill from gape ·45.

*Distribution.* Nepal and Sikhim; the Daphla and Eastern Nága hills; Manipur. Found on hills and mountains up to 9000 feet or probably higher.

*Habits, &c.* Absolutely nothing is known about the general habits of this bird. Of its nidification Hodgson relates that it lays three or four eggs in an egg-shaped nest made of bamboo-leaves and grass in a clump of bamboos. The eggs appear to be white, spotted with brownish red, and to measure ·7 by ·5.

### Genus **RIMATOR**, Blyth, 1847.

The sole bird which constitutes the genus *Rimator* is remarkable for its very long bill and its very short tail. There can be no doubt that its proper position is in this subfamily, but it has no very close ally.

In this genus the bill is slender and as long as the head; the culmen is curved downwards and the tip of the bill is barely notched; the rictal bristles are short; the nostrils are open ovals. The tail is less than half the length of the wing and slightly rounded.

The only species known inhabits the higher mountains of Sikhim and Manipur.

### 185. **Rimator malacoptilus.** *The Long-billed Babbler.*

Rimator malacoptilus, *Blyth, J. A. S. B.* xvi, pp. 155, 864, 878 (1847); *id. Cat.* p. 338; *Horsf. & M. Cat.* ii, p. 717; *Jerd. B. I.* i, p. 493; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 196; *Hume, Cat.* no. 335; *Sharpe, Cat. B. M.* vii, p. 594; *Hume, S. F.* xi, p. 121.

Caulodromus gracei, *Gray & Mitch. Gen. Birds*, i, p. 143, pl. 44, fig. 4.

Merva jerdonii, *Hodgs. Calc. Journ. N. H.* viii, p. 46, pl. iii, fig. 2 (1847).

*The Long-billed Wren*, Jerd.; *Karriak-tungbrek-pho*, Lepch.

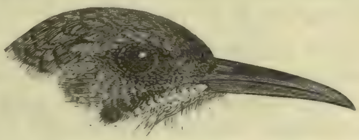

Fig. 51.—Head of *R. malacoptilus.*

*Coloration.* Forehead, crown, nape, sides of the neck, and mantle dark rufescent brown, with very distinct fulvous shaft-streaks; the feathers of the back with the inner webs black, and the outer webs brown and with pale fulvous shafts; rump, upper tail-coverts, and tail plain rufescent; wing-coverts and the outer webs of the quills rufous-brown, the former with pale shafts; lores fulvous; ear-coverts rufous-ashy with paler shafts; cheeks mingled black and fulvous, with a black line above; chin fulvous white; throat, breast, and abdomen rufescent brown, with large pale fulvous shaft-streaks; sides of body and thighs plain rufescent brown; vent and under tail-coverts ferruginous.

Bill dark horny, fleshy at the base; legs brownish red; iris light brown (*Jerdon*).

Length nearly 5; tail 1; wing 2·3; tarsus ·9; bill from gape ·95.

*Distribution.* Sikhim and Manipur, only at considerable elevations. There are some specimens of this bird in the British Museum, collected by Hodgson, but it is not clear whether they were obtained in Nepal or in Sikhim.

*Habits, &c.* As remarked by Jerdon, this species is probably a ground feeder in thick brushwood, and its food consists of insects.

## Genus **TURDINULUS**, Hume, 1878.

The proper position of this genus is doubtless near the thick-billed genera such as *Drymocataphus*, but it is more convenient to place it here.

In *Turdinulus* the tail is reduced to a minimum in length. The bill is of the same shape as that of *Drymocataphus* (fig. 41, p. 146), and the nostrils of both genera are alike. The rictal bristles are moderate.

### 186. **Turdinulus roberti.** *Robert's Babbler.*

Myiothera murina, *Müll. apud Blyth, Ibis*, 1865, p. 47.
Pnoepyga caudata, *Blyth, apud Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 101 (1870).
Pnoepyga roberti, *Godw.-Aust. & Wald. Ibis*, 1875, p. 252; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 195; *Hume, S. F.* iv, p. 218.
Turdinulus roberti (*G.-A. & Wald.*), *Hume, S. F.* vi, p. 234 (1878); *Hume, Cat.* no. 332 ter; *Sharpe, Notes Leyd. Mus.* vi, p. 173.
Turdinulus murinus (*Müll.*), *apud Hume, S. F.* ix, p. 115; *Oates, B. B.* i, p. 62; *Sharpe, Cat. B. M.* vii, p. 593.

*Coloration.* Upper plumage with the tail and exposed parts of the wings rufescent olive-brown, the forehead decidedly fulvous, the feathers of the crown, nape, and back edged with black, and those of the back with fulvous shaft-streaks, as also those of the lesser wing-coverts, the median and greater coverts and tertiaries with terminal fulvous-white spots; lores and a long supercilium to the nape fulvous; sides of the head fulvous mottled with black, the ear-coverts with paler shafts, and the cheeks narrowly banded with black; chin and throat pale fulvous, generally quite plain, occasionally with a few very minute brown specks; breast and abdomen fulvous, the edges of the feathers broadly brown; sides of body and thighs nearly uniform fulvescent brown; under tail-coverts ferruginous.

Legs, feet, and claws pale brown and brown to pale fleshy-brown and dusky fleshy; upper mandible brown to black, lower pale to dark plumbeous; iris brown, light brown, cinnabar, sienna-brown, deep brown (*Hume*).

Length about 4·5; tail ·9; wing 2·1; tarsus ·8; bill from gape ·75.

*Distribution.* Asalú and also at Chakha in the Manipur hills; Muleyit mountain in Tenasserim at 5000 feet and upwards.

The species found in Sumatra and identified by Blyth with *T. roberti* does not, according to Sharpe, appear to be the same.

*Habits, &c.* Mr. Davison observes that these birds are generally seen in pairs, occasionally three or four together, hopping about on the ground or amongst the stems of the undergrowth only in the densest portions of the forest. They are not shy and do not fly unless very closely pressed.

## Subfamily BRACHYPTERYGINÆ.

The subfamily *Brachypteryginæ* forms a group of birds which, in addition to possessing the general characters of the family, are specially recognizable by their long legs and short tails. In habits they are terrestrial, and nearly all of them are skulkers in thick brushwood.

This subfamily connects the *Turdidæ* with the *Crateropodidæ*. Its members have still, in great measure, the habits of Thrushes, but the young have emancipated themselves from the mottled plumage. With two exceptions the adults have given up their migratory habits, and the two sexes of many of them have the plumage alike. The eggs of nearly all the species, so far as they are known, are spotted.

### *Key to the Genera.*

- *a.* Tail much longer than tarsus.
  - *a′.* Tail but little graduated or nearly square, outer feathers falling short of tip of tail by less than half the length of tarsus.
    - *a″.* Tail not less than twice the length of tarsus.
      - *a‴.* Second primary equal to or exceeding the longest secondaries.
        - $a^4$. First primary longer than half the second ...................... MYIOPHONEUS, p. 178.
        - $b^4$. First primary shorter than half the second ...................... LARVIVORA, p. 181.
      - *b‴.* Second primary much shorter than the longest secondaries.
        - $c^4$. Nostrils round ................. ARRENGA, p. 183.
        - $d^4$. Nostrils long ovals ............ BRACHYPTERYX, p. 184.
    - *b″.* Tail much shorter than twice the length of tarsus........................ DRYMOCHARES, p. 186.
  - *b′.* Tail greatly graduated, outer feathers falling short of tip of tail by as much as length of tarsus.
    - *c″.* Nostrils roundish ovals, pierced in the anterior corner of the membrane .... HODGSONIUS, p. 189.
    - *d″.* Nostrils linear, pierced along the lower edge of the covering membrane...... ELAPHRORNIS, p. 190.

*b*. Tail much shorter than tarsus.
  *e''*. Breadth of bill at the nostrils greater than its depth .................... TESIA, p. 191.
  *f''*. Breadth of bill at the nostrils equal to its depth .......................... OLIGURA, p. 193.

## Genus **MYIOPHONEUS**, Temminck, 1823.

The genus *Myiophoneus* contains a few species of birds of very brilliant blue plumage. Three occur within our limits and others are found in China and the Malayan islands.

In *Myiophoneus* the bill is very stout, but somewhat shorter than the head, compressed laterally, and considerably hooked at the tip, and the nostrils are round. The wing is rounded, but not nearly so much so as in *Arrenga*. The legs and feet are remarkably strong.

The young birds are very similar to the adults, but for the first few weeks or perhaps months the brilliant glossy spots of the adult are absent. The adults of both sexes resemble each other.

### *Key to the Species.*

*a*. Bill more or less yellow.
  *a'*. Median wing-coverts tipped white ........ *M. temmincki*, p. 178.
  *b'*. Median wing-coverts plain .............. *M. eugenii*, p. 179.
*b*. Bill entirely black ........................ *M. horsfieldi*, p. 180.

### 187. **Myiophoneus temmincki.** *The Himalayan Whistling-Thrush.*

Myiophonus temminckii, *Vigors, P. Z. S.* 1831, p. 171; *Gould, Cent.* pl. 21; *Blyth, Cat.* p. 159; *Jerd. B. I.* i, p. 500; *Hume, N. & E.* p. 221; *Hume & Henderson, Lah. to Yark.* p. 187; *Hume, S. F.* ii, p. 331, iii, p. 105; *id. Cat.* no. 343; *Scully, S. F.* viii, p. 281; *Oates, B. B.* i, p. 18; *Sharpe, Cat. B. M.* vii, p. 7; *Hume, S. F.* xi, p. 122; *Oates in Hume's N. & E.* 2nd ed. i, p. 120.
Myiophonus cæruleus (*Scop.*), *apud Horsf. & M. Cat.* i, p. 199.

*The Yellow-billed Whistling-Thrush*, Jerd.; *Kastura*, of the Hills (N.W. Himalaya); *Kaljit*, of the Doon; *Chamong-pho*, Lepch.; *Tetiman*, Bhut.; *Simtúng*, Khási.

*Coloration.* Lores and base of forehead black, the forehead higher up bright cobalt-blue; the whole plumage blue, each feather tipped with glistening blue; wings and tail overlaid with cobalt-blue on the outer webs; lesser wing-coverts black, with broad margins of glistening cobalt-blue; median wing-coverts tipped with white.

The young have the upper plumage and wings dull blue without the glistening tips; the whole lower plumage dull black; tail like that of the adult.

Bill yellow, the culmen and the base of the upper mandible blackish; iris brown; feet and claws black.

Length about 13·5; tail 5·5; wing 7; tarsus 2·1; bill from gape 1·6.

*Distribution.* The Himalayas from the Hazára country and Gilgit to the Daphla hills in Assam; the hill-ranges south of Assam;

Cachar; Manipur; Arrakan, and probably the whole country west of the Irrawaddy river; Karennee and the Karen hills, where this is found together with the next species. This bird also extends into Afghanistan and Turkestan.

In summer this species is found up to 11,000 feet, but in winter it descends to lower levels and even to the plains. In Cachar it is said to be merely a winter visitor.

*Habits, &c.* This species frequents hill-streams and torrents, perching on rocks and snags and feeding largely on snails, the shells of which are frequently found accumulated on the ground where the bird has been in the habit of breaking them up. It has a loud and pretty whistling note. It breeds from April to June, constructing a massive cup-shaped nest of roots and moss in a crevice of a rock or in the root of some up-turned tree in the river-bed near or under a waterfall, and laying from three to five eggs, which are pale grey or green, speckled with pink and brown. The eggs measure 1·42 by 1.

### 188. **Myiophoneus eugenii.** *The Burmese Whistling-Thrush.*

Myiophoneus eugenei, *Hume, S. F.* i, p. 475 (1873), iii, p. 106, v, p. 113, note; *Hume & Dav. S. F.* vi, p. 236; *Hume, Cat.* no. 343 bis; *Bingham, S. F.* ix, p. 176; *Oates, S. F.* x, p. 204; *id. B. B.* i, p. 17; *Sharpe, Cat. B. M.* vii, p. 9; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 610; *Oates in Hume's N. & E.* 2nd ed. i, p. 123.

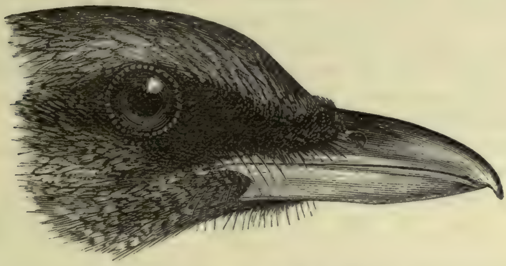

Fig. 52.—Head of *M. eugenii.*

*Coloration.* Resembles *M. temmincki.* Differs in having the median upper wing-coverts without the conspicuous white tips of that species, and in having a bill much larger and with less black on the upper mandible.

Bill orange-yellow, the region of the nostrils and a portion of the culmen dark brown; mouth yellow; iris umber-brown; eyelids straw-yellow; legs black.

Length about 13·5; tail 5·5; wing 7; tarsus 2·3; bill from gape 1·7.

*Distribution.* The whole of Pegu east of the Irrawaddy river; the Karen hills; Karennee; the pine-forests of the Salween river;

the central portion of Tenasserim, and the Thoungyeen valley; extending into Siam.

*Habits, &c.* Like the preceding species, the present bird is found in rocky streams as a rule, but Mr. Fea procured the only specimen that he observed in Tenasserim near the Farm Caves of Moulmein. Bingham got the nest in April in the Thoungyeen valley. It was made of green moss and black roots and fibres, and was placed on a dead tree which had been caught by rocks in the river-bed. The eggs were of a pale stone-colour, spotted with reddish brown, and measured about 1·48 by 1·02.

189. **Myiophoneus horsfieldi.** *The Malabar Whistling-Thrush.*

Myiophonus horsfieldii, *Vigors, P. Z. S.* 1831, p. 35; *Gould, Cent.* pl. 20; *Blyth, Cat.* p. 159; *Horsf. & M. Cat.* i, p. 200; *Jerd. B. I.* i, p. 499; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 179; *McMaster, J. A. S. B.* xl, pt. ii, p. 211; *Hume, N. & E.* p. 221; *Ball, S. F.* ii, p. 406, iii, p. 292; *Butler, S. F.* iii, p. 469; *Bourdillon, S. F.* iv, p. 398; *Davidson & Wenden, S. F.* vii, p. 81; *Ball, S. F.* vii, p. 212; *Hume, Cat.* no. 342; *Davison, S. F.* x, p. 373; *Sharpe, Cat. B. M.* vii, p. 10; *Barnes, Birds Bom.* p. 168; *Oates in Hume's N. & E.* 2nd ed. i, p. 124.

*Gunta-ukkee,* Canarese.

*Coloration.* The whole head and neck deep black, with a crescentic band of bright cobalt-blue on the anterior portion of the crown; upper plumage black, each feather broadly edged with blue; tail blue, with black shafts; lesser wing-coverts cobalt-blue; middle coverts black, tipped with cobalt-blue; greater coverts black, edged with blue; outer webs of the quills chiefly blue, inner webs black; breast and abdomen black, fringed with cobalt-blue; vent and under tail-coverts dull blue.

The young have the wings and tail like the adult, but all the other parts of the plumage dull black.

Iris deep brown; legs and bill black (*Davison*).

Length about 12; tail 4·5; wing 6·2; tarsus 1·9; bill from gape 1·6.

*Distribution.* The Indian peninsula. To the north-west this species has been noticed as far as Mount Abu and to the north-east as far as Sirguja and Sambalpur; it extends down to Travancore. It has not, however, been recorded from the Eastern coast of India.

*Habits, &c.* Inhabits forests in the neighbourhood of hill-streams, and is found from near the level of the sea up to 6000 feet. Breeds from March to July, constructing a massive cup-shaped nest of roots, dead leaves, and vegetable matter on some rock in a mountain-torrent or on a ledge of a cliff, or very frequently in a hole of some tree a considerable height from the ground. The eggs, three in number, are salmon-coloured or pink marked with pinkish brown, and measure about 1·3 by ·95. The note of this bird is a fine whistle.

## Genus **LARVIVORA**, Hodgs., 1837.

The genus *Larvivora* contains two species, one of which is confined to India and the other is found in the eastern portion of the Empire and Eastern Asia in general. The first is a migratory bird in a small degree, moving from the hills to the plains and back again according to season; of the second very little is known except that it has a very extensive range.

In *Larvivora* the sexes differ in colour, and all the evidence I have been able to collect points to the fact that the nestling resembles the female. The position of this genus is therefore in this subfamily, to which its coloration, habits, long legs, and short tail further ally it.

In this genus the bill is slender and about half the length of the head and the nostrils are long ovals. The wing is somewhat pointed, with the first primary of comparatively small size; the tarsus is slender and long and the tail is very much shorter than the wing, whereas in the Robins, to which the Blue Chats bear considerable resemblance, the tail is proportionately much longer.

### *Key to the Species.*

*a*. Upper plumage blue.
  *a'*. Lower plumage white.................. *L. cyanea* ♂, p. 181.
  *b'*. Lower plumage bright chestnut ........ *L. brunnea* ♂, p. 182.
*b*. Upper plumage olive-brown.
  *c'*. Throat and breast pale fulvous, mottled with brown .................. .......... *L. cyanea* ♀, p. 181.
  *d'*. Throat and breast bright fulvous, mottled with brown ......................... *L. brunnea* ♀, p. 182.

### 190. **Larvivora cyanea.** *The Siberian Blue Chat.*

Motacilla cyane, *Pall. Reis. Russ. Reichs*, iii, p. 697 (1776).
Larvivora gracilis, *Swinh. Ibis*, 1861, p. 262.
Brachypteryx *vel* Callene, sp., *Beavan, Ibis*, 1870, p. 321; *Blyth, Birds Burm.* p. 101.
Larvivora cyane (*Pall.*), *Wald. in Blyth's Birds Burm.* p. 101; *Hume & Dav. S. F.* vi, pp. 335, 516; *Hume, Cat.* no. 507 bis; *Bingham, S. F.* ix, p. 185; *Oates, S. F.* x, p. 213; *Hume, S. F.* xi, p. 198.
Erithacus cyaneus (*Pall.*), *Seebohm, Cat. B. M.* v, p. 303; *Oates, B. B.* i, p. 13.

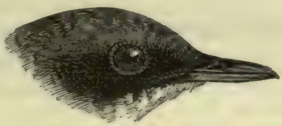

Fig. 53.—Head of *L. cyanea*.

*Coloration. Male.* The base of the bill, the lores, and a line under the cheeks black; cheeks, ear-coverts, and the whole upper plumage blue; wings and tail brown, washed with blue on the outer webs; the whole lower plumage pure white, the flanks washed with brown.

*Female.* The whole upper plumage and the lesser upper wing-coverts olive-brown, tinged with russet on the upper tail-coverts; greater coverts and quills brown, suffused with rufous on the outer webs, the former also distinctly tipped with rufous; tail brown, suffused with russet; forehead, lores, and sides of the head rufous, mottled with brown; middle of chin and throat, the abdomen, and under tail-coverts pure white; sides of the chin and the throat and the whole breast pale fulvous, each feather margined with brown, causing a mottled appearance; sides of the body plain fulvous.

The young are coloured like the female. Young males assume a little blue on the back and upper tail-coverts at an early age.

Legs, feet, and claws fleshy white; upper mandible in the male dark, in the female pale horny brown; lower mandible fleshy white or pale brown; gape fleshy white; (one male had the upper mandible horny black;) irides deep brown (*Davison*).

Length 5·6; tail 1·8; wing 2·8; tarsus 1·1; bill from gape ·7.

*Distribution.* Has been procured in Lower Pegu by myself and in various localities in Tenasserim by Davison and Bingham. Hume obtained this bird in Manipur at the end of April. In the Pinwill Collection in the British Museum there is a specimen which is said to have been procured in the N.W. Himalayas near Simla. I know of no other instance of the occurrence of the present species in India proper; but Seebohm asserts that it winters in North India, a somewhat sweeping statement which requires confirmation.

I am by no means certain that this bird is more than a partial migrant in Burma. I procured the only specimen I ever met with in Burma on the 21st May, and the fact that specimens were collected by Davison and Bingham only in the winter months goes for little when it is remembered that the collection of birds is suspended in Burma in great measure in the wet season or summer months, owing to the heavy rainfall and the impenetrability of the jungle at that period of the year.

This species has a wide range, being found in Eastern Asia from Siberia to Borneo.

*Habits, &c.* This Blue Chat keeps entirely to the ground in dense vegetation, and occurs solitarily or in pairs.

### 191. **Larvivora brunnea.** *The Indian Blue Chat.*

Larvivora cyana, *Hodgs. J. A. S. B.* vi, p. 102 (1837); *Horsf. & M. Cat.* i, p. 310; *Jerd. B. I.* ii, p. 145; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 44; *Hume, N. & E.* p. 324; *Legge, S. F.* iii, p. 369.

Larvivora brunnea, *Hodgs. J. A. S. B.* vi, p. 102 (1837); *Legge, Birds Ceyl.* p. 446; *Oates in Hume's N. & E.* 2nd ed. i, p. 127.

Phœnicura superciliaris, *Jerd. Madr. Journ. L. S.* xiii, p. 170 (1844).

Calliope cyana (*Hodgs.*), *Blyth, Cat.* p. 169.

Larvivora superciliaris (*Jerd.*), *Blyth, Ibis*, 1867, p. 16; *Blanf. J. A. S. B.* xli, pt. ii, p. 161; *Brooks, S. F.* iii, p. 240; *Fairbank, S. F.*

iv, p. 259; *Davidson & Wenden, S. F.* vii, p. 83; *Ball, S. F.* vii, p. 216; *Hume, Cat.* no. 507; *Brooks, S. F.* viii, p. 474; *Vidal, S. F.* ix, p. 66; *Butler, S. F.* ix, p. 405; *Davison, S. F.* x, p. 389; *Barnes, Birds Bom.* p. 208; *Hume, S. F.* xi, p. 197.
Erithacus brunneus (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 302.

*The Blue Wood-Chat*, Jerd.; *Manzhil-pho,* Lepch.

*Coloration. Male.* The lores, cheeks, and ear-coverts black, produced as a band down the sides of the neck; a distinct white supercilium to the nape; the whole upper plumage, wing-coverts, and the exposed parts of the wings and tail dull blue; point of the chin and a narrow line bordering the black cheeks white; throat, breast, and sides of the body bright chestnut; under wing-coverts blue; remainder of the lower plumage white.

*Female.* Very similar to the female of *L. cyanea*, differing merely by the greater intensity of the fulvous on the breast.

The young resemble the adult female.

Bill black; legs and feet fleshy; iris very dark brown (*Davison*).

Of about the same size as *L. cyanea.*

*Distribution.* Every suitable portion of India proper from Murree to Shillong and down to Travancore and Ceylon. In many parts of the Himalayas and on the Nilgiris this bird is a permanent resident, but in the plains it appears to be merely a winter visitor. Its migrations, however, are very limited in extent, resolving themselves chiefly to movements from one elevation to another according to season and not extending far horizontally.

*Habits, &c.* This species is found in forests and thick jungle. It appears to feed entirely on the ground and to be of a shy nature. It breeds on the higher portions of its range, constructing a small nest of moss and leaves in a hole in a tree. The eggs are pale brownish or greenish, speckled with brownish red, and measure about ·98 by ·67.

## Genus **ARRENGA**, Lesson, 1831.

The genus *Arrenga* is represented within our limits by one species, an inhabitant of Ceylon. The history of the genus is very incomplete owing to its rarity, but there can be little doubt that its position is in this subfamily.

In general appearance *Arrenga* resembles *Myiophoneus*, but the two genera differ in the shape of the wing. In *Arrenga* the bill is stout, half as long as the head, and well bent down at the tip; the rictal bristles are long and the nostrils rounded. The wing is very rounded and blunt, the tarsus long and thick, and the tail short and nearly square.

### 192. **Arrenga blighi.** *The Ceylon Arrenga.*

Arrenga blighi, *Holdsworth, P. Z. S.* 1872, p. 444, pl. 19; *Hume, S. F.* vii, p. 378; *id. Cat.* no. 343 ter.

Myiophoneus blighi (*Holdsw.*), *Legge, Birds Ceyl.* p. 463, pl. 20, figs. 1, 2; *Sharpe, Cat. B. M.* vii, p. 13.

*Coloration.* The adult male has entire head and neck black; back, scapulars, breast, and abdomen dull blue; region of the vent brown; rump and upper tail-coverts russet-brown; tail brown, edged on the outer webs with rufous; lesser wing-coverts cobalt-blue; the other coverts and the quills dark brown, narrowly edged with bluish.

A younger male has the whole plumage ferruginous, lighter below, and the back and scapulars suffused with a tinge of blue; the upper tail-coverts brighter ferruginous; tail brown, edged with ferruginous; lesser wing-coverts cobalt-blue as in the adult; the other coverts and the quills brown, edged with ferruginous.

The nestling, according to Holdsworth, is brown, darker on the upper surface and more rufous below; the feathers of the forehead, throat, and breast centred with yellow-brown; an indication of blue on the carpal joint.

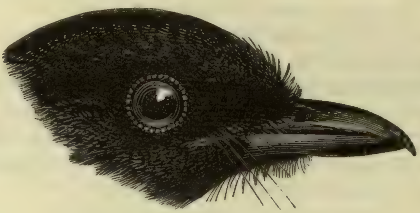

Fig. 54.—Head of *A. blighi.*

According to Legge the adult female is similar to the adult male, but has the wing-spot lighter in colour, and at the same time of a brighter tint than in the male.

Iris brown; bill, legs, and feet black (*Legge*).

Length about 8; tail 3·1; wing 4·1; tarsus 1·4; bill from gape 1·2.

There are only two skins of this rare bird in the British Museum. One is evidently an adult male, and the other apparently a young male with traces of blue appearing on the back and scapulars. Both birds are described above.

*Distribution.* Ceylon, where this bird is found in dense vegetation on the hills.

## Genus **BRACHYPTERYX**, Horsf., 1821.

The two Indian birds which I place in this genus are absolutely congeneric with *Brachypteryx montana*, the type of the genus. They have hitherto been placed in *Callene*, the type of which is *C. frontalis*; but they are not only not congeneric with this bird, but they belong, in my opinion, to quite another family. *Callene* is a true Thrush with the young mottled; *Brachypteryx*, according to the evidence before me, is a Crateropodine bird with the young similar to the adult. The two genera are also in structure quite different, especially with regard to the length of the tail and tarsus.

In *Brachypteryx* the bill is about half the length of the head, strong and broad at the base; the nostrils are long ovals and they are overhung by the greatly lengthened shafts of the frontal feathers; the rictal bristles are long. The wing is short and rounded; the tarsus smooth and of considerable length, and the tail is short and square or nearly so. The sexes are alike in all respects, and both species are non-migratory and confined to small tracts of hill-country.

### *Key to the Species.*

*a.* Sides of abdomen slaty blue ................ *B. albiventris*, p. 185.
*b.* Sides of abdomen pale chestnut ............ *B. rufiventris*, p. 185.

### 193. **Brachypteryx albiventris.** *The White-bellied Short-wing.*

Callene albiventris, *Fairbank, Blanf. P. Z. S.* 1867, p. 833, pl. 39; *id. J. A. S. B.* xxxviii, pt. ii, p. 179; *Jerd. Ibis,* 1872, p. 132; *Hume, N. & E.* p. 220; *Fairbank, S. F.* v, p. 402, vii, p. 35; *Hume, Cat.* no. 339 bis; *Sharpe, Cat. B. M.* vii, p. 15; *Terry, S. F.* x, p. 473.

Brachypteryx albiventris (*Fairb.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 128.

*Coloration.* Lores and a narrow frontal band deep black; above these a band of bluish white; centre of abdomen, vent, and under tail-coverts white; with these exceptions the whole plumage and the exposed parts of the closed wings and tail are dark slaty blue.

Bill black; feet leaden black; iris buff (*Fairbank*).

Length about 6·5; tail 2·6; wing 3·2; tarsus 1·15; bill from gape ·9.

*Distribution.* The Palni hills and Southern Travancore from 1000 feet upwards.

*Habits, &c.* According to Fairbank these birds live in thickets and are hard to discover. At the breeding-season the males have a sweet song. The breeding-season is May and June. The nest is placed in a hole of a tree or bank and is made of moss. The eggs, generally two in number, are greyish green, thickly covered with brown marks. They measure about ·93 by ·63.

### 194. **Brachypteryx rufiventris.** *The Rufous-bellied Short-wing.*

Phœnicura major, *Jerd. Madr. Journ. L. S.* xiii, p. 170 (1844).

Brachypteryx major (*Jerd.*), *Blyth, Cat.* p. 178.

Callene rufiventris, *Blyth, Jerd. B. I.* i, p. 496; *id. Ibis,* 1872, p. 132;

*Hume, N. & E.* p. 219; *id. Cat.* no. 339; *Davison, S. F.* x, p. 372; *Sharpe, Cat. B. M.* vii, p. 16.

Brachypteryx rufiventris (*Jerd.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 129.

*Coloration.* Lores and the feathers in front of the eye black; forehead and a band over the lores pale blue; the whole upper plumage, the visible portions of the closed wings and tail, the sides of the head and neck, the chin, throat, and breast dark slaty blue; middle of the abdomen whitish; remainder of the lower plumage pale chestnut.

Bill black; legs and feet pale fleshy brown; claws darker; iris dark brown (*Davison*).

Length nearly 7; tail 2·6; wing 3·2; tarsus 1·1; bill from gape ·8.

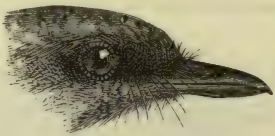

Fig. 55.—Head of *B. rufiventris.*

*Distribution.* The Nilgiris, Bramhagiris and adjoining hill-ranges, from about 5500 to 7000 feet.

*Habits, &c.* According to Davison this species keeps to the denser portion of the undergrowth in evergreen forests, where it lives entirely on the ground. It is found in pairs or singly, and the male has a pleasing little song. It breeds in April and May, constructing a nest of green moss in a hole of a tree or a bank, and laying two or three eggs, which are olive-brown with reddish-brown marks round the larger end of the egg. They measure about 1 by ·67.

### Genus **DRYMOCHARES**, Gould, 1868.

The four Indian birds which I place in this genus differ from true *Brachypteryx* in having a much shorter tail and longer tarsus.

In *Drymochares* the bill is slender and about half the length of the head; the nostrils are long ovals, and the rictal bristles are moderate; the wing is very rounded and short; the tarsus extremely long, and the tail short.

In three of the species the sexes are very differently coloured; in the fourth the coloration of the sexes is doubtful. The young birds of two species resemble the adult female very closely, and the young males soon assume the garb of the adult male.

The history of the birds of this genus is in a very unsatisfactory and imperfect condition, especially with regard to their nidification and distribution.

### *Key to the Species.*

| | |
|---|---|
| A. Upper plumage chestnut | *D. stellatus*, p. 187. |
| B. Upper plumage blue or brown. | |
| *a'*. Chin and throat chestnut | *D. hyperythrus*, p. 187. |
| *b'*. Chin and throat blue or rufous ashy brown | *D. cruralis*, p. 188. |
| *c'*. Chin and throat white | *D. nepalensis*, p. 188. |

### 195. **Drymochares stellatus.** *Gould's Short-wing.*

Brachypteryx (Drymochares) stellatus, *Gould, P. Z. S.* 1868, p. 218.
Drymochares stellatus (*Gould*), *Blanf. J. A. S. B.* xli, pt. ii, p. 52.
Brachypteryx stellatus (*Gould*), *Hume, S. F.* vii, p. 377; *id. Cat.* no. 338 ter; *Sharpe, Cat. B. M.* vii, p. 30.

*Coloration.* Lores black; forehead, a short eyebrow, sides of the head, chin, throat, and breast slaty grey, finely vermiculated with white and black lines; remainder of the lower parts the same but suffused with rufous, and each feather with a central triangular white patch; crown, nape, back, scapulars, wing-coverts, upper tail-coverts, and tail bright chestnut; rump like the lower part of the abdomen; wings brown, the feathers all margined with chestnut.

The young are apparently unknown, but will probably be found to resemble the adults.

Length rather more than 5; tail 1·7; wing 3; tarsus 1·2; bill from gape ·7.

*Distribution.* Sikhim. Nothing is known about this bird; but Blanford procured one specimen at 12,000–13,000 feet.

### 196. **Drymochares hyperythrus.** *The Rusty-bellied Short-wing.*

Brachypteryx hyperythra, *Jerd. & Blyth, P. Z. S.* 1861, p. 201; *Jerd. B. I.* i, p. 495; *Hume, S. F.* v, p. 499; *id. Cat.* no. 337; *Sharpe, Cat. B. M.* vii, p. 28.

*Coloration. Male.* Lores and feathers in front of the eye black; sides of the head and neck and the whole upper plumage, with the visible portions of the closed wings and tail, deep blue; a short and partially-concealed eyebrow white; the entire lower plumage and the under wing-coverts bright chestnut.

*Female.* The whole upper plumage, with the visible portions of the closed wings and tail, olive-brown, the shafts of the feathers on the side of the face fulvous; the entire lower plumage pale chestnut, the abdomen whitish, and the sides of the body suffused with brown; no eyebrow.

The young bird is unknown, but it is probably like the female.

Bill corneous; legs fleshy; iris brown (*Jerdon*).

Length nearly 5; tail 1·7; wing 2·5; tarsus 1·1; bill from gape ·7.

*Distribution.* Sikhim. Nothing is known about this bird's habits.

### 197. **Drymochares cruralis.** *The White-browed Short-wing.*

Calliope cruralis, *Blyth, J. A. S. B.* xii, p. 933 (1843).
Brachypteryx cruralis (*Bl.*), *Cat.* p. 178; *Horsf. & M. Cat.* i, p. 397; *Jerd. B. I.* i, p. 495; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 102; *Blanf. J A. S. B.* xli, pt. ii, p. 160; *Hume, N. & E.* p. 219; *Wardlaw Ramsay, Ibis,* 1875, p. 352; *Wald. in Bl. Birds Burm.* p. 99; *Hume & Dav. S. F.* vi, p. 236; *Hume, Cat.* no. 338; *Oates, B. B.* i, p. 19; *Sharpe, Cat. B. M.* vii, p. 26.
Brachypteryx rufifrons, *Jerd. & Bl. P. Z. S.* 1861, p. 201.
Brachypteryx hyperythra, *Jerd. & Bl. apud Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 102.
Drymochares cruralis (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 129.

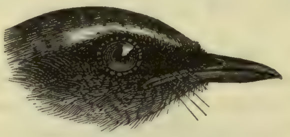

Fig. 56.—Head of *D. cruralis.*

*Coloration. Male.* Whole plumage slaty blue, the exposed portions of the quills duller; middle of the abdomen tinged with ashy; lores and a frontal band black bordered above by white produced backwards over the eye.

*Female.* Lores, forehead, and round the eye bright ferruginous; sides of the head rufous-brown; upper plumage rufescent olive-brown; tail and the outer webs of the wings chestnut-brown; lower plumage ashy brown tinged with rufous, especially on the under tail-coverts; a broad but partially concealed supercilium white.

The young resemble the female, but at first they have no trace of the white supercilium.

Iris brown; bill brown; legs greyish brown (*Wardlaw Ramsay*).

Length about 5·2; tail 1·9; wing 2·6; tarsus 1·2; bill from gape ·7.

*Distribution.* Nepal; Sikhim; the Khási hills; Karennee at 5200 feet. This species occurs up to 8000 feet or higher.

*Habits, &c.* But little is known of the habits of this bird. It appears to breed from April to June. The nest according to Hodgson is a globular structure of moss and roots. Hume describes several nests found by Mandelli's men as massive, shallow cups composed of fine black roots with a few leaves and a little moss. Both authorities agree in stating that the nest is built a short distance off the ground in brushwood. The eggs are described as being white and measuring about ·88 by ·63.

### 198. **Drymochares nepalensis.** *The Nepal Short-wing.*

Brachypteryx nipalensis, *Hodgs., Moore, P. Z. S.* 1854, p. 74; *Horsf. & M. Cat.* i, p. 397; *Jerd. & Blyth, P. Z. S.* 1861, p. 201; *Jerd. B. I.*

i, p. 494; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 102; *Blanf. J. A. S. B.* xli, pt. ii, p. 160; *Hume & Dav. S. F.* vi, p. 236; *Hume, Cat.* no. 336; *Oates, B. B.* i, p. 19; *Sharpe, Cat. B. M.* vii, p. 29; *Hume, S. F.* xi, p. 121.

Drymochares nepalensis (*Hodgs.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 130.

*The White-bellied Short-wing*, Jerd.

*Coloration. Male.* The lores and a frontal band dark blackish blue; a partially concealed white eyebrow; the whole upper plumage, sides of the head and neck, cheeks and the visible portions of the closed wings and tail dark slaty blue; chin, throat, and the central portion of the abdomen white, somewhat mottled with brown specks; remainder of lower plumage smoky brown.

*Female.* The whole upper plumage and sides of the head and neck ferruginous olive-brown, the space round the eye ruddier than the other parts; a partially-concealed white eyebrow similar to that of the male; chin, throat, and central portion of the abdomen whitish; remainder of the lower plumage fulvous.

The young resemble the female; the young males assume the adult plumage in the first spring.

Bill dark brown; gape whitish; legs and feet dark purplish fleshy; iris dark brown (*Davison*).

Length nearly 5; tail 1·4; wing 2·3; tarsus 1·1; bill from gape ·7.

Hume and Davison have already noticed the strange fact that all the males the latter procured in Tenasserim are similar to the female in plumage. I find that the same is the case with all the sexed males from Shillong and Manipur. In Sikhim, on the other hand, blue males appear to be common enough.

*Distribution.* Sikhim; the Khási hills; Manipur; Muleyit mountain in Tenasserim. It is very doubtful whether Hodgson's specimens in the British Museum came from Nepal.

This species has been found on the mountains of Perak in the Malay peninsula.

*Habits, &c.* The nest of this species appears to be always globular or domed, constructed of dry flags and dry skeleton leaves, and placed in brushwood or on a fallen tree a short distance off the ground. The eggs are pale stone-colour, marked with pale reddish brown, and measure about ·8 by ·6.

## Genus **HODGSONIUS**, Bonap., 1850.

The genus *Hodgsonius* is represented by a single species, which bears considerable resemblance in shape and colour to *Brachypteryx*, but differs in having the sexes differently coloured and the tail considerably longer.

The bill of *Hodgsonius* resembles that of *Drymochares*, and the rictal bristles are weak. The wing is rounded, and the tarsus is lengthened and much graduated.

The young appear to resemble the female from the earliest age. The only species of this genus is non-migratory, and although it is a fairly common bird nothing is on record about its habits.

### 199. **Hodgsonius phœnicuroides.** *Hodgson's Short-wing.*

Bradypterus phœnicuroides, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844) (desc. nulla); *Gray, Cat. Mamm. &c. Nepal,* p. 70, App. p. 153 (1846).
Sylvania phœnicuroides (*Hodgs.*), *Blyth, J. A. S. B.* xvi, p. 136; *id. Cat.* p. 178.
Hodgsonius phœnicuroides (*Hodgs.*), *Horsf. & M. Cat.* i, p. 395; *Jerd. B. I.* i, p. 497; *Hume, Ibis,* 1870, p. 529; *Jerd. Ibis,* 1872, p. 132; *Hume & Henders. Lah. to Yark.* p. 187, pl. vi; *Hume, Cat.* no. 341; *Brooks, S. F.* viii, p. 470; *Sharpe, Cat. B. M.* vii, p. 81.
Dumeticola cyanocarpa, *Hume, Ibis,* 1872, p. 108 (♀); *id. S. F.* iii, p. 409; vii, p. 461.
Callene hodgsoni, *Moore, Jerd. Ibis,* 1872, p. 132; *Hume, S. F.* iii, p. 411; *id. Cat.* no. 339 ter.
Schœnicola cyanocarpus (*Hume*), *Hume, Cat.* no. 519 ter.

*The White-bellied Short-wing,* Jerd.

*Coloration. Male.* The whole body-plumage slaty blue except the abdomen, which is white, and the tail-coverts, which are slaty blue tipped with whitish; quills dark brown, washed with blue on the outer webs; tail-feathers blackish suffused with blue, the four outer pairs chestnut on the basal half of both webs, the next pair chestnut on the basal half of the outer web only.

*Female.* Upper plumage and wing-coverts olive-brown, the margins of the quills rufous; tail rufous-brown, deeper on the parts which are chestnut in the male; sides of the head and the lower plumage ochraceous; the abdomen whitish; and the lower tail-coverts dark ochraceous with pale centres and tips.

The young resemble the female, and young males assume the full adult plumage in the first autumn.

Bill dusky, reddish at the gape; legs pale red-brown; iris dark brown (*Jerdon*); gape yellow (*J. Henderson*).

Length about 7·5; tail 3·2; wing 3; tarsus 1·1; bill from gape ·8.

*Distribution.* The Himalayas from Gulmurg and Sonamurg in Kashmir to Bhutan. This species appears to be found at the foot of the hills as well as at considerable altitudes.

*Habits, &c.* Appears to frequent thick underwood.

## Genus **ELAPHRORNIS**, Legge, 1879.

The genus *Elaphrornis* contains a single species, which is confined to the higher hills of Ceylon.

It is a rare bird, and materials for forming an opinion as to its position are hardly sufficient. On the whole I am inclined to think that its place is in this subfamily.

*Elaphrornis* has the bill similar to that of *Drymochares*, and short rictal bristles; the wing is extremely rounded, the tail of moderate length and much graduated, and the tarsus long. The plumage is very soft and ample, especially on the back and rump.

### 200. Elaphrornis palliseri. *The Ceylon Short-wing.*

Brachypteryx (?) palliseri, *Blyth, J. A. S. B.* xx, p. 178 (1851); *Holdsworth, P. Z. S.* 1872, p. 443, pl. xviii; *Hume, S. F.* vii, p. 377; *id. Cat.* no. 338 bis.

Elaphrornis palliseri (*Bl.*), *Legge, Birds Ceyl.* p. 514, pl. xxiv, fig. 2; *Sharpe, Cat. B. M.* vii, p. 517; *Oates in Hume's N. & E.* 2nd ed. i, p. 131.

*Coloration.* The whole upper plumage, tail, and exposed parts of the wings olive-brown, tinged with rufous on the tail and upper tail-coverts; lores, the ear-coverts, and under the eye dark brown, the ear-coverts with whitish shafts; a dull white line over the lores, extending over the eye; chin fulvous white, throat rusty fulvous; middle of the abdomen yellowish; remainder of the lower parts slaty olive, the flanks, thighs, and under tail-coverts with a rufous tinge.

The male has the iris clear red; bill black, slaty at the base beneath; legs and feet deep neutral brown or purplish brown; claws pale brownish horn; in the female the iris is buff (*Legge*).

Length about 6·5; tail 2·6; wing 2·4; tarsus 1; bill from gape ·8.

A young bird, or perhaps an adult female, resembles the adult above described generally, but has the chin and throat fulvous white, barred or mottled with greenish, and the rusty-fulvous patch on the throat is altogether wanting.

Legge remarks that the iris of the young male is pale reddish buff and that of the young female white.

*Distribution.* Ceylon, above 5000 feet of altitude.

*Habits, &c.* This species is found in thick brushwood, feeding on the ground. Mr. Bligh found a nest in April: a deep cup-shaped structure of moss lined with roots, placed in a thick bush. The nest contained three young birds.

## Genus TESIA, Hodgs., 1837.

The genus *Tesia* of Hodgson was made to embrace several species of birds which are not now considered congeneric; but as *Tesia cyaniventris* was the first species enumerated by him, it may fairly be considered the type, and as such I adopt it.

In *Tesia* the bill is rather more than half the length of the head, broad at the base, flattened, and blunt. The wings are excessively short and rounded, the tail extremely short, and the tarsi very long.

*Tesia* contains one Indian species, which inhabits the Himalayas and the Eastern hill-ranges. In this genus the sexes are differently coloured, and the young bird does not resemble the female so closely as is usual in the other genera of *Crateropodidæ*. The plumage of the young, however, is perfectly plain and bears no signs of spots, streaks, or bars.

### 201. **Tesia cyaniventris.** *The Slaty-bellied Short-wing.*

Tesia cyaniventer, *Hodgs. J. A. S. B.* vi, p. 101 (1837); *Blyth, Cat* p. 178; *Horsf. & Moore, Cat.* i, p. 179; *Jerd. B. I.* i, p. 487; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 101; *Hume, Cat.* no. 328; *Brooks, S. F.* viii, p. 470; *Hume, S. F.* xi, p. 118; *Oates in Hume's N. & E.* 2nd ed. i, p. 131.
Tesia auriceps, *Hodgs. J. A. S. B.* xvi, p. 137 (1847).
Oligura cyaniventris (*Hodgs.*), *Sharpe, Cat. B. M.* vii, p. 604.

*The Slaty-bellied Wren*, Jerd.; *Ti-si*, Nepal; *Samtit-tammong*, Lepch.

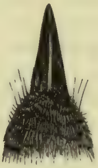

Fig. 57.—Head of *T. cyaniventris.*

*Coloration. Male.* The forehead, crown, and nape glistening golden brown; the rest of the upper plumage and the visible portions of the closed wings and tail olive-green; lores and a broad stripe from the eye to the nape black; sides of the head and the whole lower plumage slaty blue.

*Female.* The entire upper plumage and the exposed parts of the wings and tail olive-green, the crown somewhat brighter than the other parts; lores and a stripe from the eye to the nape black, with a yellowish supercilium above; sides of head and lower plumage dark ashy, suffused with white in places.

The young bird has the whole upper plumage green with a rufescent tinge; the sides of the head and the whole lower plumage dull olive-green. The black lores and postocular stripe with the pale supercilium make their appearance very soon after the bird is fledged.

From the series of birds sexed by Hume in Manipur, it would appear that young males assume the full plumage of the adult female before the final change to that of the adult male.

Legs, feet, and claws dull brown to pale, rather fleshy, brown; upper mandible and tip of lower deep to blackish brown; rest of lower mandible and gape dull wax-yellow to orange-horny: iris deep brown (*Hume*); iris vermilion (*Cripps*).

Length nearly 4; tail ·8; wing 1·8; tarsus ·95; bill from gape ·6.

*Distribution.* Nepal; Sikhim; Dibrugarh in Assam; the Khási hills; Manipur. This species appears to be found at comparatively low levels, but no exact information on this point is available.

*Habits, &c.* Found in brushwood on the ground. According to Hodgson this bird constructs a huge globular nest of green moss and black moss-roots in a thick bush. The eggs, three or four in number, are figured as being white speckled with bright red. They measure ·72 by ·54.

## Genus **OLIGURA**, Hodgs., 1845.

The genus *Oligura* resembles *Tesia* in many respects, but differs in two important particulars. In the first place *Oligura* has the bill comparatively slender and narrow, and in the second it has the sexes alike in plumage.

The only species of this genus found in India inhabits the higher ranges of the Himalayas and the hill-tracts of Assam.

### 202. **Oligura castaneicoronata.** *The Chestnut-headed Short-wing.*

Sylvia? castaneo-coronata, *Burton, P. Z. S.* 1835, p. 152.
Tesia flaviventer, *Hodgs. J. A. S. B.* vi, p. 102 (1837).
Tesia castaneo-coronata (*Burt.*), *Blyth, Cat.* p. 179; *Horsf. & M. Cat.* i, p. 179; *Jerd. B. I.* i, p. 487; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 101; *Blanf. J. A. S. B.* xli, pt. ii, p. 55; *Hume, Cat.* no. 327.
Oligura castaneocoronata (*Burt.*), *Sharpe, Cat. B. M.* vii, p. 603; *Oates in Hume's N. & E.* 2nd ed. i, p. 132.

*The Chestnut-headed Wren*, Jerd.; *Tisi*, Nepal; *Samtit-pho*, Lepch.

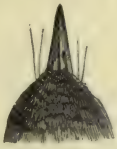

Fig. 58.—Bill of *O. castaneicoronata.*

*Coloration.* Forehead, crown, nape, lores, ear-coverts, and a line under the eye bright chestnut; a small patch of white feathers at the posterior corner of the eye; cheeks, chin, throat, breast, and abdomen bright yellow, the breast suffused with olivaceous and mottled with a few indistinct brown bars; sides of breast, abdomen, and under tail-coverts olivaceous; upper plumage, wings, and tail dark olive-green.

The young bird has the entire upper plumage, sides of the head, the wings, and tail dark olive-green; the whole lower plumage dull chestnut, tinged with yellow on the abdomen.

Bill brownish yellow; legs yellow; iris red in some birds, brown in others (*Cockburn*).

*Distribution.* Nepal; Sikhim; the Khási hills. Jerdon gives the range of this bird from 3000 to 6000 feet, but Blanford says it is common in Sikhim from 7000 to 10,000 feet. Godwin-Austen procured it at 7000 feet on Hengdan peak, Khási hills.

*Habits, &c.* According to Godwin-Austen this bird haunts thick and low brushwood and is difficult to shoot in such cover; it emits a loud and rather musical note from time to time as it hops from bough to bough. Blanford describes the note as sharp and monotonous. Accounts of the nidification of this species are conflicting, and therefore I shall not quote them.

## Subfamily SIBIINÆ.

The subfamily *Sibiinæ* is represented in India by thirty-two species of birds. These all agree in being strictly arboreal, in having the sexes alike in plumage and size, and in being non-migratory. Their plumage is in most cases bright, and they are more or less found in flocks.

With few exceptions the *Sibiinæ* lay spotted eggs. The few exceptions require further evidence, as the information on the subject of their nidification is either insufficient or conflicting. The species of *Zosterops* lay eggs which are sometimes plain and sometimes marked, and the position of this genus requires more investigation. As remarked in another place, *Zosterops* is included in this subfamily provisionally, as no better place can at present be found for it. It, however, agrees in all essential characters with the *Sibiinæ*.

### *Key to the Genera.*

*a.* Tail nearly twice the length of wing ........ SIBIA, p. 195.
*b.* Tail and wing not very different in length.
  *a'.* Tail graduated.
    *a''.* All the feathers of the tail graduated.
      *a'''.* Tail longer than wing, the outer tail-feather falling short of tip of tail by a distance equal to length of tarsus.
        $a^4$. Depth of bill at the nostrils less than breadth; wings not barred ...... LIOPTILA, 195.
        *b.* Depth of bill at the nostrils greater than breadth; wings barred ...... ACTINODURA, p. 201.
      *b'''.* Tail equal to or shorter than wing; the outer tail-feather falling short of tip of tail by a distance less than length of tarsus.
        $c^4$. Nostrils not overhung by hairs; wings barred .................. IXOPS, p. 203.
        $d^4$. Nostrils overhung by hairs; wings not barred .................. STAPHIDIA, p. 205.
    *b''.* The four middle pairs of tail-feathers of the same length; the two outer pairs only graduated ......................... SIVA, p. 207.
  *b'.* Tail square, not graduated.
    *c''.* Bill slender, gently curved, both mandibles of the same length.
      *c'''.* First primary equal in length to the tarsus ......................... YUHINA, p. 211.
      *d'''.* First primary extremely minute, not longer than the hind toe ......... ZOSTEROPS, p. 213.

| | |
|---|---|
| *d''*. Bill stout, straight, the upper mandible longer than the lower one, with the tip bent down. | |
| *e'''*. Depth of bill at the nostrils less than breadth .......................... | IXULUS, p. 216. |
| *f'''*. Depth of bill at the nostrils more than breadth .......................... | HERPORNIS, p. 219 |

## Genus SIBIA, Hodgs., 1836.

The genus *Sibia* contains but one species, which is remarkable for the extraordinary length of its tail. This is twice the length of the wing, and greatly graduated.

The bill is shorter than the head, curved down and slender, and the nostrils are covered by a large membrane. The rictal bristles are moderate in length. The bill is very similar to that of *Lioptila*, figured below.

### 203. Sibia picaoides. *The Long-tailed Sibia.*

Sibia picaoides, *Hodgs. J. A. S. B.* viii, p. 38 (1839); *Blyth, Cat.* p. 98; *Horsf. & M. Cat.* i, p. 216; *Jerd. B. I.* ii, p. 55; *Hume, N. & E.* p. 268; *Wald. Ibis*, 1876, p. 354; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 78; xlvii, pt. ii, p. 18; *Hume & Dav. S. F.* vi, p. 294; *Hume, Cat.* no. 430; *Scully, S. F.* viii, p. 293; *Oates, B. B.* i, p. 43; *Sharpe, Cat. B. M.* vii, p. 401; *Hume, S. F.* xi, p. 173; *Oates in Hume's N. & E.* 2nd ed. i, p. 132.

*Malcheo-pho*, Lepch.

*Coloration.* Whole upper plumage, wings, and tail deep slaty brown, the tail tipped with white, and the wings with a white patch formed by a spot on each outer web of four of the secondaries; forehead and lores blackish; throat and breast slaty brown; remainder of lower plumage ashy grey, becoming albescent on the abdomen.

Bill horny black; iris scarlet; feet greyish dusky; claws horny-black (*Scully*).

Length 13·5; tail 8·5; wing 4·8; tarsus 1·1; bill from gape 1·1.

*Distribution.* Nepal, Sikhim, and Bhutan; the Daphla hills; the Nága hills; Karennee; Tenasserim. Tickell states that he procured this species in Tenasserim at an elevation of 3000 feet. It appears to be found up to an elevation of 5000 feet.

*Habits, &c.* Jerdon states that this Sibia associates in flocks of six or seven, and flies from tree to tree, feeding on both fruit and insects and keeping up a continual whistling sort of call. Gammie found the nest in Sikhim—a cup made of herbaceous plants and lined with grass; and the eggs, five in number, were greyish white speckled with brown and purple; they measured about ·9 by ·72.

## Genus LIOPTILA, Blyth, 1847.

The genus *Lioptila*, according to my views, embraces those two species which have been hitherto by common agreement placed in this genus, and five others which have been usually placed in *Malacias.* I cannot find a single character by which to separate the above two genera, and I accordingly join them together.

In *Lioptila* the bill is similar to that of *Ixops*, but rather more slender; the nostrils are long, and covered by a long membrane; the rictal bristles are fairly long, and the crest is more or less well developed in all the species. The tail is considerably longer than the wing and well-graduated, the outer feather reaching a little beyond the middle of the tail.

### *Key to the Species.*

*a.* Crown of head black or brown.
  *a'.* Median pair of tail-feathers with a subterminal black band.
    *a''.* Rump and upper tail-coverts rufous .. *L. capistrata*, p. 196.
    *b''.* Rump and upper tail-coverts ashy grey. *L. gracilis*, p. 197.
  *b'.* Median pair of tail-feathers uniformly black or brown with white tips.
    *c''.* Rump chocolate-brown like the back.
      *a'''.* Tertiaries and greater wing-coverts black .......................... *L. melanoleuca*, p. 198.
      *b'''.* Tertiaries and greater wing-coverts chiefly chestnut ................ *L. castanoptera*, p. 199.
    *d''.* Rump chestnut.
      *c'''.* Wing-coverts margined, the lesser and median with ashy, the greater with chestnut .................. *L. annectens*, p. 199.
      *d'''.* Wing-coverts entirely black ...... *L. davisoni*, p. 200.
*b.* Crown of head bluish grey like the upper plumage .......................... *L. pulchella*, p. 200.

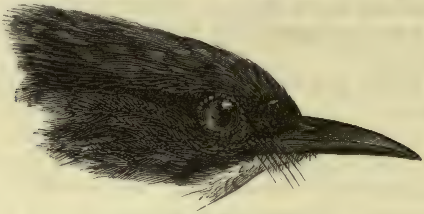

Fig. 59.—Head of *L. capistrata.*

### 204. **Lioptila capistrata.** *The Black-headed Sibia.*

Cinclosoma capistratum, *Vigors, P. Z. S.* 1831, p. 56.
Sibia nigriceps, *Hodgs. J. A. S. B.* viii, p. 38 (1839).
Sibia capistrata (*Vig.*), *Blyth, Cat.* p. 98; *Horsf. & M. Cat.* i, p. 216; *Jerd. B. I.* ii, p. 54; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 38; *Cock & Marsh. S. F.* i, p. 354; *Hume, N. & E.* p. 267; *Brooks, S. F.* iii. p. 238.
Malacias capistratus (*Vig.*), *Hume, Cat.* no. 429; *S. F.* viii, p. 292; *Sharpe, Cat. B. M.* vii, p. 403.

Lioptila capistrata (*Vig.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 133.

*Sambriak-pho*, Lepch.; *Sesigona*, Bhut.; *Sibya*, Nep.

*Coloration.* Forehead, crown, crest, nape, and sides of the head black, the ear-coverts sometimes dark brown; the whole lower plumage, rump, upper tail-coverts, and a broad collar round the neck bright rufous; back and scapulars greyish brown; median tail-feathers rufous for three quarters of their length, then with a black band and a bluish tip; in the other feathers the rufous portion diminishes rapidly and the black increases, but the blue tips remain constant in size; lesser wing-coverts rufous; primary-coverts black; greater coverts white at base, forming a broad band, the exterior feathers blue tipped with black, the others white, tipped with rufous; tertiaries chestnut, edged with blue; the other quills dark brown, the primaries with the outer webs pale blue, the secondaries dark blue.

Bill black; iris reddish brown; feet fleshy brown; claws brown-horny (*Scully*).

Length nearly 9; tail 4; wing 3·7; tarsus 1·1; bill from gape 1.

Birds from Sikhim are intensely rufous on the lower plumage, as compared with birds from other localities, and the colour of the back is also liable to much variation.

*Distribution.* Throughout the Himalayas from the Hazára country to Bhutan at elevations of from 5000 to 8000 feet.

*Habits, &c.* Frequents high trees, feeding on fruit and insects. Breeds from May to July, constructing a cup-shaped nest of moss and fibres in a branch of a tree up to 50 feet from the ground. The eggs, two or three in number, are pale green, marked with reddish and purplish, and measure about ·98 by ·69.

### 205. Lioptila gracilis. *The Grey Sibia.*

Hypsipetes gracilis, *McClell. P. Z. S.* 1839, p. 159.

Sibia gracilis (*McClell.*), *Blyth, Cat.* App. p. viii; *Horsf. & M. Cat.* i, p. 216; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 105; xliii, pt. ii, p. 179; *Hume, S. F.* iii, p. 413.

Malacias gracilis (*McClell.*), *Hume, Cat.* no. 429 bis; *id. S. F.* xi, p. 172; *Sharpe, Cat. B. M.* vii, p. 406.

Lioptila gracilis (*McClell.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 135.

*Coloration.* Forehead, crown, and lores black, paling on the nape and ear-coverts, and blending with the rich slaty brown of the hind neck, back, and scapulars; rump and upper tail-coverts ashy grey; lesser and median coverts, primary-coverts, and the outer feathers of the greater coverts black; the remaining greater coverts and the tertiaries bluish ashy, edged with black, and the basal portions more or less white; quills black, the earlier primaries edged with hoary grey on the outer webs; central tail-feathers bluish grey with a subterminal black band, the next with the black band and the ashy tip increasing in extent, and so on till the outermost feathers are entirely black with a bluish-grey tip; chin, throat, and cheeks white, becoming fulvous on the breast and abdomen, the sides of which are washed with lilac; vent and under tail-coverts buff.

Tarsus pale brown; feet and claws darker; bill black; iris brownish red, dull maroon or dull red (*Hume*); iris crimson (*Cockburn*).

Length about 9·5; tail 4·5; wing 3·7; tarsus 1·2; bill from gape 1·1.

*Distribution.* The Khási and Nága hills; Manipur; generally above 4500 feet.

*Habits, &c.* Hume describes this bird as being very active. It runs along the branches, dodging in and out of the bunches of parasitic ferns, orchids, and mistletoe, so as to be very difficult to shoot. Godwin-Austen found the nest at the end of June. It was constructed of grass, moss, and rootlets, and was placed near the top of a pine. The eggs, three in number, were pale sea-green, with ash-brown streakings and blotchings all over.

### 206. **Lioptila melanoleuca.** *Tickell's Sibia.*

Sibia melanoleuca (*Tick.*), *Blyth, J. A. S. B.* xxviii, p. 413 (1859); *Wald. Ibis,* 1876, p. 355; *Blyth, Birds Burm.* p. 108; *Davison, S. F.* v, p. 458; *Hume & Dav. S. F.* vi, p. 293.

Sibia picata, *Tickell, J. A. S. B.* xxviii, p. 451 (1859).

Malacias melanoleucus (*Tick.*), *Hume, Cat.* no. 429 quat.; *Sharpe, Cat. B. M.* vii, p. 405; *Oates, B. B.* i, p. 43; *Salvad. Ann. Mus. Civ. Gen.* (2) v, p. 604.

Lioptila melanoleuca (*Tick.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 135.

*Coloration.* Forehead, crown, nape, and the sides of the head except the ear-coverts deep black; ear-coverts very dark brown; back, scapulars, lesser and median wing-coverts, rump, and upper tail-coverts chocolate-brown, tinged with ashy on the latter two parts; wings and greater coverts black; tail dark brown, the outer webs edged with black, and all the feathers tipped with white; entire lower plumage white.

Legs and feet varying from a very dark reddish brown to a dark purplish brown or brownish black; bill black; iris lake (*Hume & Davison*).

Length about 9; tail 4·1; wing 3·5; tarsus 1·1; bill from gape ·95.

*Distribution.* The higher portions of Muleyit mountain in Tenasserim.

*Habits, &c.* The note of this bird is a single, long drawn, clear-sounding whistle. Davison found the nest in February—a cup of grass, roots, and fibres placed in a high tree. It contained two blue eggs, which measured about ·97 by ·67.

### 207. **Lioptila castanoptera.** *Fea's Sibia.*

Malacias castanopterus, *Salvadori, Ann. Mus. Civ. Gen.* (2) vii, p. 363 (1889).

*Coloration.* Resembles *L. melanoleuca*, and differs merely in having the greater portion of the tertiaries and greater wing-coverts chestnut.

Bill and legs black.

Length about 9; tail 4·3; wing 3·7; tarsus 1·1; bill from gape ·9.

*Distribution.* Mr. Fea procured this species in the Karen hills east of Toungngoo in Burma, and I have recently examined a specimen which was obtained at Fort Stedman in the Shan States by Dr. Manders.

### 208. **Lioptila annectens.** *Blyth's Sibia.*

Leioptila annectans, *Blyth, J. A. S. B.* xvi, p. 450 (1847); *id. Cat.* p. 337; *Jerd. B. I.* ii, p. 248; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; *Hume, Cat.* no. 613; *Sharpe, Cat. B. M.* vii, p. 80; *Hume, S. F.* xi, p. 246.

Lioptila saturata, *Wald. Ibis,* 1875, p. 352, note; *Wardlaw-Ramsay, Ibis,* 1877, p. 464.

*The Slender-billed Shrike-Tit,* Jerd.; *Rabnun-pho,* Lepch.

*Coloration.* Forehead, lores, crown, nape, ear-coverts, and round the eye black; hind neck black, streaked with white; sides of the back black; scapulars pale rufous; middle of the back, the rump, and upper tail-coverts deep chestnut, the latter with a few black streaks; lesser and median wing-coverts black, edged with ashy; greater coverts black, tipped with chestnut; primaries black, edged on the outer web with bluish white, except the last two or three, which are plain; secondaries similarly edged, except at the bases; tertiaries more broadly edged and tipped with white, and with some chestnut on the outer web near the base; tail black, edged with deeper black on the basal half, and tipped white, more broadly on the outer feathers, and more narrowly towards the middle; lower plumage white, except the vent, under tail-coverts, and flanks, which are pale chestnut.

Legs and feet wax-yellow; claws brownish; bill black; gape and more or less of basal portion of lower mandible yellow; iris chocolate, brownish chocolate, brownish maroon, claret-red, greyish chocolate-brown (*Hume*).

Length about 7·5; tail 3·4; wing 3·1; tarsus ·95; bill from gape ·75.

*L. saturata*, Walden, is so close to this species that I cannot separate it. On the other hand, *L. davisoni*, Hume, from Tenasserim, is a markedly distinct bird. I have examined the types of both species.

*Distribution.* Sikhim; the Khási and Nága hills; North Cachar; Manipur; Karennee. This specis is found at 4000 feet and upwards.

*Habits, &c.* Hume states that this bird creeps about the branches of large trees in forest, very much like a Creeper, though neither quite so rapid nor so jerky in its movements.

### 209. **Lioptila davisoni.** *Davison's Sibia.*

Leioptila davisoni, *Hume, S. F.* v, p. 110 (1877).
Lioptila saturata, *Wald., apud Hume & Dav. S. F.* vi, p. 370; *Hume, Cat.* no. 613 bis; *Oates, B. B.* i, p. 141 (part.); *Sharpe, Cat. B. M.* vii, p. 80 (part.); *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 600.

*Coloration.* Forehead, crown, nape, sides of the head, hind neck, sides of the neck, back, scapulars, and all the wing-coverts deep black, with a few very narrow streaks of white on the middle of the back; rump deep chestnut; upper tail-coverts black, with broad maroon tips; primaries margined with bluish white, except the last two or three, which are plain; secondaries margined with bluish white, except near the base; tertiaries tipped with white, and margined with chestnut on the outer webs near the base; tail black, the feathers edged with deeper black on the basal halves of their outer webs, and tipped with white, broadly on the outer, and narrowly on the middle feathers; edge of wing and lower plumage white, except the vent, under tail-coverts, and flanks, which are pale fulvous.

Upper mandible and half the lower black; rest of lower mandible, legs, feet, and claws fleshy yellow; iris greyish brown (*Davison*).

Length about 8; tail 3·5; wing 3·1; tarsus ·95; bill from gape ·8.

This bird cannot be confounded with *L. annectens*, from which it differs by its black wing-coverts, black back, and maroon rump.

*Distribution.* Muleyit mountain in Tenasserim on the higher slopes.

*Habits, &c.* Davison remarks that this bird creeps like a Nuthatch about the trunks and branches of trees, and also searches the leaves and smaller branches of the tree-tops.

### 210. **Lioptila pulchella.** *The Beautiful Sibia.*

Sibia pulchella, *Godwin-Austen, A. M. N. H.* (4) xiii, p. 160 (1874); *id. J. A. S. B.* xliii, pt. ii, p. 164, pl. vii; xlv, pt. ii, p. 78; *Hume, S. F.* iii, p. 281.
Malacias pulchellus (*Godw.-Aust.*), *Hume, Cat.* no. 429 ter; *Sharpe, Cat. B. M.* vii, p. 407; *Hume, S. F.* xi, p. 173.

*Coloration.* The whole upper plumage bluish grey, brighter on the head; median tail-feathers umber-brown, with a subterminal black band and a dark grey tip; the others with a progressively diminishing amount of umber-brown and an increasing quantity of black till the outermost feathers are wholly black with a grey tip; smaller wing-coverts bluish grey; greater coverts next the body entirely chocolate-brown, this colour diminishing in extent on the outer coverts and giving place to black; winglet and primary-coverts black; edge of wing bluish grey; tertiaries umber-brown, edged with black on the outer webs; secondaries black, broadly edged externally with dark bluish grey; primaries black, with the outer webs almost entirely pale bluish grey; lores and round the eye black; ear-coverts bluish grey mottled with black; the sides of the neck and the entire lower plumage ashy blue tinged with vinous.

Bill black; legs horny-brown (*Godwin-Austen*).

Length about 9·5; tail 4·9; wing 4·1; tarsus 1·3; bill from gape 1·1.

*Distribution.* The Peak of Khunho, Eastern Burrail range, Nága hills, at about 8000 feet; the slopes of Toruputu Peak, Daphla hills, at about 5000 feet.

*Habits, &c.* Godwin-Austen, the discoverer of this species, says that it is found in companies of about half a dozen haunting the tops of the rhododendron trees, the flowers of which it searches busily for insects.

## Genus **ACTINODURA**, Gould, 1836.

The genus *Actinodura*, as I restrict it, contains two species. Other birds which have been hitherto placed in this genus I have transferred to *Ixops* of Hodgson.

In *Actinodura* the bill is rather slender, about half the length of the head, and of very similar shape to that of *Ixops* figured below; the nostrils are covered by a very large membrane, and the rictal bristles are long and distinct. The tail is considerably longer than the wing and greatly graduated.

### *Key to the Species.*

| | |
|---|---|
| *a.* Median tail-feathers barred only at the extreme tip | *A. egertoni*, p. 201. |
| *b.* Median tail-feathers barred throughout | *A. ramsayi*, p. 202. |

### 211. **Actinodura egertoni.** *The Rufous Bar-wing.*

Actinodura egertoni, *Gould, P. Z. S.* 1836, p. 18; *Blyth, Cat.* p. 98; *Horsf. & M. Cat.* i, p. 212; *Jerd. B. I.* ii, p. 52; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 105; xlv, pt. ii, p. 76; xlvii, pt. ii, p. 24; *Hume, N. & E.* p. 266; *id. S. F.* vii, p. 153; *id. Cat.* no. 427; *Sharpe, Cat. B. M.* vii, p. 463; *Hume, S. F.* xi, p. 170; *Oates in Hume's N. & E.* 2nd ed. i, p. 136.

*Ramnio-pho*, Lepch.

*Coloration.* Crest rich ashy brown; forehead, lores, round the eye, cheeks, and chin rufous; ear-coverts, sides of neck, and mantle brown, paler than the crest; smaller wing-coverts, back, rump, and upper tail-coverts reddish brown; primary-coverts almost entirely black; greater coverts chestnut; inner webs of primaries and secondaries brown, the outer ones ashy, except on the basal portions, which are chestnut; the ashy portions of the outer webs barred with black; tertiaries wholly silky brown, narrowly barred across with black; outer tail-feathers brown, barred with black and tipped white, the others successively less barred and becoming more and more suffused with reddish brown; the middle pair entirely reddish brown, with a few faint brown bars near the tips; throat and upper breast pinkish fulvous; remainder of lower plumage fulvous, the centre of the abdomen whitish and the under tail-coverts tipped with white.

Bill light horny; legs pale brown; iris brown (*Jerdon*).

Length about 9; tail 4·5; wing 3·3; tarsus 1·1; bill from gape ·8.

Birds from Sikhim have the back and tail very rufous; those from the Khási hills and Manipur have these parts ochraceous and the middle tail-feathers more distinctly barred.

*Distribution.* Nepal to the Daphla hills in Assam; the Khási and Nága hills; Manipur. This bird is found from 3000 to 6000 feet of elevation.

*Habits, &c.* Hume remarks that these birds go about in small parties and are quite tree birds, clambering about and poking into every hole and cranny, and foraging about in the huge branches of orchids and other parasites much like Tits.

They build their nest in trees at all heights from the ground, a cup-shaped structure made of leaves held together by creeper-stems. The eggs are pale green marked in various ways with umber-brown, and measure about ·92 by ·68.

### 212. **Actinodura ramsayi.** *Ramsay's Bar-wing.*

Actinura ramsayi, *Wald. A. M. N. H.* (4) xv, p. 402 (1875); *Wald. in Blyth's Birds Burm.* p. 108; *Hume, S. F.* iii, p. 404; *Wardlaw Ramsay, Ibis,* 1877, p. 464, pl. xii.

Actinodura ramsayi (*Wald.*), *Hume & Dav. S. F.* vi, p. 293; *Hume, Cat.* no. 427 ter; *Oates, B. B.* i, p. 42; *Sharpe, Cat. B. M.* vii, p. 464.

*Coloration.* Upper plumage cinereous olive-brown, tinged with ferruginous on the head and more so on the forehead, the feathers of the back, rump, and upper tail-coverts faintly cross-barred with black; primary-coverts black; tertiaries and remaining wing-coverts olive-brown distinctly barred with black; outer webs of primaries and secondaries chestnut on their basal halves, ashy on the terminal, the whole web barred with black; tail olive-brown, distinctly barred with numerous narrow black bars, the bars becoming coarser towards the outer feathers; all the feathers tipped white; lores and round the eyes dusky; sides of head dusky ashy; whole lower plumage ochraceous buff, becoming browner on the under tail-coverts.

Iris light hair-brown; bill horny brown; legs slaty-brown (*Wardlaw Ramsay*).

Length about 9·5; tail 5; wing 3·5; tarsus 1·1; bill from gape ·9.

Resembles *A. egertoni* in general appearance, but differs in many important particulars.

*Distribution.* This species was discovered by Wardlaw Ramsay at Kyai-pho-gyee in Karennee, in a jungle-covered mountain-stream at an elevation of about 3000 feet.

## Genus **IXOPS**, Hodgs., 1844.

The genus *Ixops* resembles *Actinodura*, but has the tail rather shorter than the wing, and the tail-feathers less graduated.

### *Key to the Species.*

| | | |
|---|---|---|
| *a.* | Throat and breast fulvous ashy, without stripes.. | *I. nepalensis*, p. 203. |
| *b.* | Throat and breast cinereous, with darker stripes.. | *I. daflaensis*, p. 204. |
| *c.* | Throat and breast rufous, striped with chestnut.. | *I. waldeni*, p. 204. |

### 213. **Ixops nepalensis.** *The Hoary Bar-wing.*

Cinclosoma nipalensis, *Hodgs. As. Res.* xix, p. 145 (1836).

Actinodura nipalensis (*Hodgs.*), *Blyth, Cat.* p. 98; *Horsf. & M. Cat.* i, p. 212; *Jerd. B. I.* ii, p. 53; *Jerd. Ibis*, 1872, p. 308; *Hume, N. & E.* p. 266; *id. Cat.* no. 428; *Scully, S. F.* viii, p. 292; *Sharpe, Cat. B. M.* vii, p. 466.

Ixops nepalensis, *Hodgs., Gray's Zool. Misc.* p. 84; *id. J. A. S. B.* xxiv, p. 577; *Oates in Hume's N. & E.* 2nd ed. i, p. 137.

*Ramnio-pho*, Lepch.

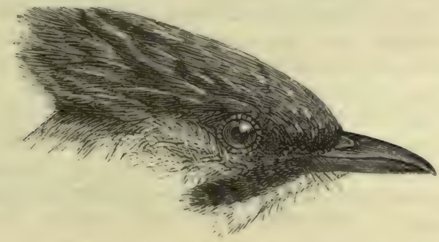

Fig. 60.—Head of *I. nepalensis.*

*Coloration.* Forehead and crest coffee-brown, with long hoary shaft-streaks; sides of neck, mantle, back, and lesser wing-coverts rufescent brown, with indistinct whitish shaft-lines; rump and upper tail-coverts more rufous and streakless; primary-coverts black; greater coverts rufous tipped with hoary; quills chestnut, barred with black on the outer webs, tertiaries rufescent and barred with black on both webs; the outer webs of the earlier primaries more or less ashy; basal portion of tail castaneous barred with black, the chestnut decreasing in extent from the median feathers to the laterals, the other portions black tipped with white; ear-coverts and lores silvery ashy; cheeks black, continued narrowly along the base of the ear-coverts; chin, throat, and breast fulvous ashy, turning to ferruginous on the flanks, lower abdomen, vent, and under tail-coverts.

Bill brownish black; iris brown; eyelid bluish grey; feet brownish fleshy; claws livid (*Scully*).

Length about 8; tail 3·3; wing 3·5; tarsus 1·2; bill from gape ·9.

*Distribution.* Nepal, Sikhim, and Bhutan, at elevations of from 4000 to 10,000 feet.

*Habits, &c.* According to Jerdon this species is still more arboreal than *A. egertoni*, and it feeds on the insects which infest the flowers of the rhododendron trees. Hodgson states that it breeds from April to June, constructing a saucer-shaped nest of twigs, grass, and fibres, in crevices between rocks and stones. The colour of the eggs is a matter about which there seems to be some doubt.

### 214. **Ixops daflaensis.** *Austen's Bar-wing.*

Actinura daflaensis, *Godwin-Austen, A. M. N. H.* (4) xvi, p. 340 (1875); *id. J. A. S. B.* xlv, pt. ii, p. 77, pl. iv; xlvii, pt. ii, p. 18; *Hume, S. F.* iv, p. 219.

Actinodura daflaensis (*Godw.-Aust.*), *Hume, Cat.* no. 428 bis; *Sharpe, Cat. B. M.* vii, p. 467; *Hume, S. F.* xi, p. 172.

*Coloration.* Forehead and crest dark brown, the feathers delicately edged paler; lores and cheeks dark brown; sides of head silvery ashy streaked with brown; hind neck and sides of neck cinereous brown; back, rump, upper tail-coverts, and the smaller wing-coverts chestnut-brown; primary-coverts black; greater wing-coverts edged with hoary; outer webs of the earlier primaries also hoary; the other primaries and the secondaries black on the terminal, chestnut barred with black on the basal portion; tertiaries rufescent olive-brown, banded with black on both webs; tail-feathers chestnut at base, black elsewhere, tipped with white, the end of the chestnut portion barred with black; chin, throat, breast, and upper abdomen cinereous streaked with brown; lower abdomen, sides of body, vent, and under tail-coverts deep chestnut-brown.

Length about 8; tail 3·3; wing 3·5; tarsus 1·2; bill from gape ·9.

*Distribution.* Godwin-Austen discovered this bird in high forest on the Shengorh Peak, Daphla hills, at 7000 feet in February.

### 215. **Ixops waldeni.** *Walden's Bar-wing.*

Actinodura waldeni, *Godwin-Austen, P. Z. S.* 1874, p. 46, pl. xii; *id. J. A. S. B.* xliii, pt. ii, p. 163; *Hume, S. F.* iii, p. 396; *id. Cat.* no. 427 bis; *Sharpe, Cat. B. M.* vii, p. 465.

*Coloration.* Forehead, crown, crest, and nape dark brown, narrowly edged with grey; back, scapulars, and wing-coverts dull rufous-brown, the outer coverts edged with bluish grey; rump and upper tail-coverts bright reddish brown; primary-coverts black; primaries and secondaries black, with an external edging of chestnut and barred black; the earlier primaries (where not chestnut) edged with grey; later secondaries and the tertiaries silky brown barred with black; base of the tail-feathers chestnut barred with black, the other parts black, the three outer pairs tipped white; ear-coverts hoary white streaked with brown; lores dusky; cheeks blackish margined with grey; the whole lower plumage rufous-brown, streaked with chestnut-brown except on the flanks and under tail-coverts.

Bill grey; legs and feet fleshy-brown; iris pale grey (*Godwin-Austen*).

Length about 8; tail 3·2; wing 3·6; tarsus 1·3; bill from gape ·85.

*Distribution.* The Peak of Japvo on the Burrail range, Nága hills, at 9000 feet, on the tops of the forest trees.

## Genus **STAPHIDIA**, Swinhoe, 1871.

The members of the genus *Staphidia* are found in the hilly regions of North-eastern India, Burma, and China.

In *Staphidia* the bill is short and thick, and resembles that of *Ixulus* figured below; the nostrils are overhung by a few long hairs; the rictal bristles are short, and the head is crested. The tail is of considerable length and much graduated. Some of the species of this genus have been retained in *Ixulus* by many Indian authors, but wrongly so. *Ixulus* has the tail quite square.

The birds of this genus are very little known. They appear to be found in trees and brushwood in small flocks.

### *Key to the Species.*

| | |
|---|---|
| *a.* Crown chestnut ........................ | *S. castaneiceps*, p. 505. |
| *b.* Crown grey, contrasting with the colour of the back ........................ | *S. rufigenis*, p. 206. |
| *c.* Crown brown, not contrasting with the colour of the back ........................ | *S. striata*, p. 206. |

### 216. **Staphidia castaneiceps.** *The Chestnut-headed Staphidia.*

Ixulus castaniceps, *Moore, P. Z. S.* 1854, p. 141; *Horsf. & M. Cat.* i, p. 411.

Ixulus striatus (*Blyth*), *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; xlv, pt. ii, p. 202.

Staphidea castaneiceps (*Moore*), *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 20; *Hume, S. F.* vii, p. 403; *id. Cat.* no. 624 bis; *Sharpe, Cat. B. M.* vii, p. 616; *Hume, S. F.* xi, p. 251.

*Coloration.* Forehead chestnut-brown, with the feathers margined with grey; crown and crest chestnut; upper plumage and visible portions of wings and tail greenish brown, the back and scapulars with white shafts; tail blackish brown, the outermost feathers broadly tipped with white, the next less so, and the middle pair entirely blackish; lores grey; a very short supercilium, originating just over the eye, white; ear-coverts chestnut with whitish shafts; lower plumage very pale fulvous white; under tail-coverts brown tipped with white; under wing-coverts pale fulvous white.

Legs and feet orange-brown; bill brown; iris brown (*Hume*).

Length nearly 5·5; tail 2·2; wing 2·4; tarsus ·65; bill from gape ·5.

*Distribution.* The Gáro, Khási, and Nága hills; Manipur. I gather from Godwin-Austen's remarks (*l. c.*) that he procured this species in the Daphla hills also. Hume observed it in Manipur at elevations above 5000 feet.

### 217. **Staphidia rufigenis.** *Hume's Staphidia.*

Ixulus striatus, *Blyth, apud Jerdon, B. I.* ii, p. 260; *Blanf. J. A. S. B.* xli, pt. ii, p. 166.
Ixulus rufigenis, *Hume, S. F.* v, p. 108 (1877).
Staphidea plumbeiceps, *Godwin-Austen, A. M. N. H.* (4) xx, p. 519 (1877); *id. J. A. S. B.* xlvii, pt. ii, pp. 19, 21; *Hume, S. F.* vii, p. 143; *id. Cat.* no. 624 ter; *id. S. F.* xi, p. 252.
Staphidea rufigenis (*Hume*), *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 21; *Hume, Cat.* no. 625 ter; *Sharpe, Cat. B. M.* vii, p. 617.

*The Striated Flower-pecker,* Jerd.

*Coloration.* Forehead, crest, and nape grey, with pale shafts; upper plumage and visible portions of wings greenish brown, the shafts of the back, scapulars, and tertiaries white; tail dark blackish brown, the outermost pair of feathers broadly tipped white, the next less so, and the median pair without any white; a short grey supercilium reaching to the middle of the upper edge of the ear-coverts, and above this a rufous band fusing posteriorly with the ear-coverts, which are chestnut with white shafts; lores grey; cheeks white, narrowly barred with black; lower plumage white tinged with very pale fulvous, the sides of the neck, breast, and body more or less suffused with olivaceous; under tail-coverts brown, broadly tipped with white; under wing-coverts pale fulvous white.

Iris reddish brown; legs umber (*Godw.-Aust.*).

Length 5·5; tail 2·3; wing 2·4; tarsus ·7; bill from gape ·55.

*Distribution.* Sikhim; the Bhutan doars; Sadiya and Brahmakhúnd in the Dibrugarh district of Assam.

### 218. **Staphidia striata.** *Tickell's Staphidia.*

Ixulus striatus, *Blyth, J. A. S. B.* xxviii, p. 413 (1859); *Hume, S. F.* v, p. 107; *Hume & Dav. S. F.* vi, p. 374.
Pycnonotus nanus, *Tickell, J. A. S. B.* xxviii, p. 452 (1859).
Staphidea striata (*Blyth*), *Blyth & Wald. Birds Burm.* p. 110; *Godw.-*

*Aust. J A. S. B.* xlvii, pt. ii, p. 21; *Hume, Cat.* no. 625; *Oates, B. B.* i, p. 150; *Sharpe, Cat. B. M.* vii, p. 617; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 606.

*Coloration.* Blyth thus described the bird:—"Length about 5 inches, of closed wing $2\frac{3}{8}$ inches, and of tail the same; bill to gape $\frac{1}{2}$ inch and tarsi $\frac{5}{8}$ inch. Colour greyish brown above, each feather with a white mesial streak; below albescent throughout; outermost tail-feather $\frac{3}{4}$ inch shorter than the middle pair, and largely tipped with white, as is also the next, and the antepenultimate and next within gradually less so, the outer four feathers successively graduating."

Tickell thus described it:—"Iris blood-red brown; bill dark horn; legs reddish horn; upper parts including a blunt crest ashy brown. Each feather shafted whitish. Remiges and centre pair of rectrices reddish clay-brown. Rest of tail dusky sepia, more and more tipped white externally; chin, throat, and all underparts ashy-white."

I append also a translation of Salvadori's description of a bird of this species procured by Fea in Tenasserim:—"Upper parts grey, with white streaks along the shafts, the feathers of the cap a little darker, lengthened, and forming a distinct crest; remiges grey, narrowly margined with white towards the end of the outer web; tail graduated, dark grey, the four outer feathers with white tips increasing in length from the outermost to the fourth; lower parts whitish; bill and feet dark horny."

I have not been able to examine a specimen of this species, and I therefore quote the above descriptions. I have seen a carefully executed plate of the bird, and I notice that the ear-coverts are rufous and that the lores and a supercilium are grey, points not noticed in the above descriptions.

*Distribution.* Tickell procured this bird at Tretoungplee, on Muleyit mountain in Tenasserim, at 3000 feet, and Fea at Plapoo on the same mountain. No one else appears to have met with it.

## Genus **SIVA**, Hodgson, 1838.

The genus *Siva* contains four species, which are found in the Himalayas and the mountain-ranges of Burma; two species extend down the Malay peninsula to Perak.

They are birds of handsome plumage. The bill is about half the length of the head, gently curved and notched; the rictal bristles are long, and the nostrils are covered by a membrane; the head is crested.

The tail-feathers are very peculiar, the ends being obliquely truncated, and only the two outer pairs are graduated, the other four pairs being of equal length.

In habits all the species seem to be alike. They are quite arboreal, being found generally in small flocks in trees of considerable size, the leaves of which they search for insects.

### *Key to the Species.*

| | |
|---|---|
| *a*. Primaries edged with orange. | |
| *a'*. Middle pair of tail-feathers chestnut-red on the basal half of the inner and the basal third of the outer webs .......... | *S. strigula*, p. 208. |
| *b'*. Middle pair of tail-feathers chestnut-red on the basal five sixths of both webs .. | *S. castaneicauda*, p. 209. |
| *b*. Primaries edged with blue. | |
| *c'*. Wings tipped with white .............. | *S. cyanuroptera*, p. 209. |
| *d'*. Wings not tipped with white .......... | *S. sordida*, p. 210. |

## 219. **Siva strigula.** *The Stripe-throated Siva.*

Siva strigula, *Hodgs. Ind. Rev.* 1838, p. 89; *Jerd. B. I.* ii, p. 252; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 50; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Hume, N. & E.* p. 392; *Brooks, S. F.* iii, p. 252; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 81; *Hume, Cat.* no. 616; *Scully, S. F.* viii, p. 319; *Sharpe, Cat. B. M.* vii, p. 638; *Oates in Hume's N. & E.* 2nd ed. i, p. 137.

Leiothrix strigula (*Hodgs.*), *Blyth, Cat.* p. 99; *Horsf. & M. Cat.* i, p. 365.

*The Stripe-throated Hill-Tit*, Jerd.; *Megblim*, Lepch.

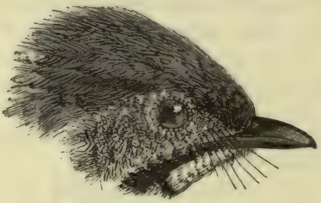

Fig. 61.—Head of *S. strigula*.

*Coloration.* Forehead, crown, and nape bright orange-brown; a ring of yellowish feathers round the eye; sides of the head grey, mottled with whitish and dusky; upper plumage slaty green; middle pair of tail-feathers, with the basal half of the inner and the basal third of the outer web, chestnut-red, the remainder black, narrowly tipped white; the next pair black, with some trace of chestnut-red at base and tipped with yellow; the other feathers with an increasing amount of yellow and a diminishing amount of black, the outermost feathers being almost entirely yellow; wing-coverts and winglet like the back; primary-coverts black; primaries and secondaries black, the outer webs edged with orange changing to yellow near the tips, the later secondaries narrowly tipped with white; tertiaries chiefly slaty grey on the outer webs and entirely black on the inner, tipped white; chin orange-yellow; throat pale yellow, with narrow crescentic black cross bars; a narrow moustachial stripe and a patch on the side of the neck black; remaining lower plumage bright yellow, tinged with olivaceous on the sides of the breast and abdomen.

The young appear to have the crown light golden yellow intermingled with grey, and to have the bars on the throat less developed.

Upper mandible dark brown; lower mandible light greyish brown; tip white; legs and feet grey; claws light brown; iris dark reddish-brown (*Hume*).

Length about 6·5; tail 2·9; wing 2·75; tarsus 1; bill from gape ·8.

*Distribution.* The Himalayas from the Sutlej valley to the Daphla hills in Assam; also in the Khási hills; found from 3000 to 10,000 feet of elevation.

*Habits, &c.* Found in flocks on trees. According to Hodgson this bird makes a cup-shaped nest of moss and bamboo-leaves in a fork of a tree in May and June. The eggs are three or four in number, pale bluish speckled with red, and measure about ·85 by ·63.

### 220. **Siva castaneicauda.** *Hume's Siva.*

Liothrix strigula (*Hodgs.*), *apud Wald. in Blyth's Birds Burm.* p. 110; *Wardlaw Ramsay, Ibis,* 1877, p. 464.

Siva castaneicauda, *Hume, S. F.* v, p. 100 (1877); *Hume & Dav. S. F.* vi, p. 371; *Hume, Cat.* no. 616 bis; *Oates, B. B.* i, p. 145; *Sharpe, Cat. B. M.* vii, p. 639; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 601.

*Coloration.* Resembles *S. strigula.* Differs in having more red on the tail, the basal five sixths of the middle pair of feathers, the basal three quarters of the inner webs, and the basal half of the outer webs of the next pair being chestnut-red; the ring of feathers round the eye is of a brighter yellow and the sides of the head are blackish; the bill is also much larger.

Legs and feet dingy glaucous green; the upper mandible dark brown, the lower fleshy; the iris deep brown (*Hume*).

Of about the same size as *S. strigula.*

*Distribution.* Bhutan; the hills east of Toungngoo; Muleyit mountain in Tenasserim. This bird appears to occur only at considerable elevations.

It has been obtained on the mountains of Perak in the Malay peninsula.

### 221. **Siva cyanuroptera.** *The Blue-winged Siva.*

Siva cyanouroptera, *Hodgs. Ind. Rev.* 1838, p. 88; *Jerd. B. I.* ii, p. 253; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; *Hume, N. & E.* p. 393; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 82; *Hume, Cat.* no. 617; *Scully, S. F.* viii, p. 319; *Sharpe, Cat. B. M.* vii, p. 640; *Hume, S. F.* xi, p. 248; *Oates in Hume's N. & E.* 2nd ed. i, p. 138.

Leiothrix cyanouroptera (*Hodgs.*), *Blyth, Cat.* p. 99; *Horsf. & M. Cat.* i, p. 366.

*The Blue-winged Hill-Tit,* Jerd.; *Megblim adum,* Lepch.

*Coloration.* Forehead, crown, nape, and hind neck pale blue, the sides of the crown deeper blue, the forehead and the anterior part of the crown streaked with brown; lores, round the eyes, and a broad streak behind the eye white; back, scapulars, wing-coverts, rump, and upper tail-coverts bright ochraceous; the median pair of tail-feathers wholly blue, with a subterminal black patch and tipped white; the next four pairs with the outer webs blue, the inner brown margined with white, subterminally black and tipped white; the outermost pair black on the outer, entirely white on the inner web; primary wing-coverts black; winglet cobalt-blue, tipped white; primaries cobalt-blue on the outer webs; secondaries with outer webs margined with pale blue and tipped white; tertiaries blackish on the inner, bluish grey on the outer webs, and tipped white; ear-coverts, cheeks, sides of the neck, chin, throat, breast, and sides of the body delicate vinous grey; middle of abdomen pale yellowish buff; vent and under tail-coverts white.

Bill grey-horny, brownish about the nostrils, and the base of the lower mandible yellow; iris brown; feet fleshy; claws horny brown (*Scully*).

Length about 6; tail 2·6; wing 2·4; tarsus ·9; bill from gape ·6.

*Distribution.* The Himalayas from Naini Tal to the Daphla hills in Assam; the Khási and Nága hills; North Cachar; Manipur; occurring from 3000 to 6000 feet or even higher.

*Habits, &c.* Breeds from April to June, constructing a cup-shaped nest of moss lined with leaves, in a fork of a small tree. The eggs, three or four in number, are greenish blue speckled with red and yellowish brown, and measure ·75 by ·51.

### 222. **Siva sordida.** *The Dull Siva.*

Siva cyanouroptera, *Hodgs., apud Blyth, Birds Burm.* p. 110.
Siva sordida, *Hume, S. F.* v, p. 104 (1877); *Hume & Dav. S. F.* vi, p. 371; *Hume, Cat.* no. 617 bis; *Oates, B. B.* i, p. 144; *Sharpe, Cat. B. M.* vii, p. 641.

*Coloration.* Resembles *S. cyanuroptera.* Differs in having the back, scapulars, wing-coverts, and the outer webs of the tertiaries earth-brown, not ochraceous; the winglet is not tipped with white, nor have the quills of the wing either white tips or white margins; the blue portions of the plumage are much duller.

Lower mandible, legs, feet, and claws whity brown; upper mandible darker, but still pale brown; iris creamy yellow (*Hume & Davison*).

Of the same size as *S. cyanuroptera.*

*Distribution.* Karennee; the higher slopes of Muleyit mountain in Tenasserim.

This species also occurs on the mountains near Perak in the Malay peninsula.

## Genus **YUHINA**, Hodgs., 1836.

The genus *Yuhina* contains four species, three of which are found in the Himalayas and the hill-tracts of Assam.

In *Yuhina* the bill is about two thirds the length of the head, greatly curved and sharply pointed; the frontal hairs and the rictal bristles are well developed, and the nostrils are covered by a large membrane. The head is fully crested. The tail is rather short and perfectly square.

One species lays spotted eggs and another unspotted white eggs, but the evidence in the latter case is not to my mind conclusive. It will prove a curious exception should it be found always to lay unspotted white eggs.

The birds of this genus frequent trees in small parties and feed largely on berries in addition to insects.

*Key to the Species.*

*a.* Throat streaked .......................... *Y. gularis*, p. 211.
*b.* Throat plain.
  *a'*. Nape chestnut ........................ *Y. occipitalis*, p. 212.
  *b'*. Nape grey .......................... *Y. nigrimentum*, p. 212.

### 223. **Yuhina gularis.** *The Stripe-throated Yuhina.*

Yuhina gularis, *Hodgs. As. Res.* xix, p. 166 (1836); *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 261; *Jerd. B. I.* ii, p. 261; *Blanf. J. A. S. B.* xli, pt. ii, p. 44; *Hume, N. & E.* p. 396; *Blyth, Birds Burm.* p. 110; *Hume, Cat.* no. 626; *Scully, S. F.* viii, p. 321; *Oates, B. B.* i, p. 150; *Sharpe, Cat. B. M.* vii, p. 631; *Oates in Hume's N. & E.* 2nd ed. i, p. 139.

*The Stripe-throated Flower-pecker,* Jerd.; *Fugi-pho,* Lepch.

*Coloration.* Forehead and crest rich hair-brown; upper plumage, wing-coverts, tertiaries, and tail olive-brown, tinged with fulvous on the rump; lores, cheeks, and ear-coverts grey; chin and throat pale rufescent, streaked with black; breast plain rufescent; remainder of lower plumage dull orange-brown, duller on the sides; primary-coverts and winglet black; wings blackish, the third to the sixth primaries edged with pale grey on the terminal portion of the outer webs, and all the secondaries except the first edged throughout their entire length with orange-brown.

Upper mandible black; lower mandible horny brown; iris brown or dark brown; feet deep buff or orange; claws dusky (*Scully*).

Length about 6; tail 2·4; wing 2·8; tarsus ·8; bill from gape ·8.

*Distribution.* Nepal, Sikhim, and Bhutan, from 4000 to 10,000 feet of elevation. Blyth records this species from Arrakan, but there is no recent instance of its occurrence in this division known.

*Habits, &c.* Breeds, according to Hodgson, from April to July, building a large, massive, egg-shaped nest of moss in the fork of a branch or between ledges of rock. The eggs are a pale buff-colour, thickly spotted with red or brownish red, and measure ·8 by ·56.

### 224. **Yuhina occipitalis.** *The Slaty-headed Yuhina.*

Yuhina occipitalis, *Hodgs. As. Res.* xix, p. 166 (1836); *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 261; *Jerd. B. I.* ii, p. 261; *Blanf. J. A. S. B.* xli, pt. ii, p. 44; *Hume, Cat.* no. 627; *Scully, S. F.* viii, p. 321; *Sharpe, Cat. B. M.* vii, p. 633.

*The Slaty-headed Hill-Tit,* Jerd.; *Turringing-pho,* Lepch.

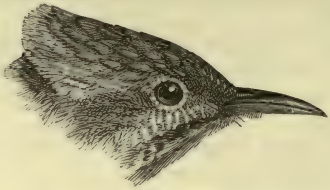

Fig. 62.—Head of *Y. occipitalis.*

*Coloration.* Forehead and crest slaty grey, with whitish shaft-streaks; posterior feathers of crest and the nape chestnut; hind neck ashy; upper plumage rufous-brown; wing and tail brown, the outer webs margined and suffused with rufous-brown; a circle of white feathers round the eye; ear-coverts and the region of the eye slaty grey, streaked whitish; a narrow interrupted black moustachial streak; chin, throat, breast, and sides of neck vinous; sides of the abdomen rusty grey; abdomen pale chestnut; thighs, vent, and under tail-coverts bright chestnut; under wing-coverts and edge of wing white.

Bill reddish brown; iris red-brown; feet orange-buff; claws horny-brown (*Scully*).

Length about 5; tail 2; wing 2·4; tarsus ·7; bill from gape ·7.

*Distribution.* Nepal, Sikhim, and Bhutan, at elevations of from 7000 to 10,000 feet.

### 225. **Yuhina nigrimentum.** *The Black-chinned Yuhina.*

Polyodon nigrimentum, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844).

Yuhina nigrimentum, *Hodgs. J. A. S. B.* xiv, p. 562 (1845); *Blyth, Cat.* p. 337; *Horsf. & M. Cat.* i, p. 262; *Jerd. B. I.* ii, p. 262; *Hume, N. & E.* p. 396; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 169, xlv, pt. ii, p. 82; *Hume, Cat.* no. 628; *Sharpe, Cat. B. M.* vii, p. 633; *Hume, S. F.* xi, p. 252; *Oates in Hume's N. & E.* 2nd ed. i, p. 139.

*The Black-chinned Flower-pecker,* Jerd.; *Turringing-pho,* Lepch.

*Coloration.* Forehead and crest black, each feather margined with grey; nape and sides of the head grey; lores and chin black; upper plumage and tail dull olive-green; primaries and secondaries brown, with a narrow external edging of olive-green to each feather; throat white; remainder of lower plumage fulvous, tinged with rufous.

Bill dusky above, lower mandible red; feet reddish yellow; iris brown (*Jerdon*).

Length about 4·5; tail 1·5; wing 2·2; tarsus ·65; bill from gape ·6.

*Distribution.* The Himalayas from Garwhál to the Daphla hills in Assam; the Nága hills, in Manipur. This species appears to be found at considerable elevations only. It extends into China.

*Habits, &c.* Gammie found a nest in Sikhim in June; a mere pad of moss and wool in a large tree. It contained four white eggs, which measured ·58 by ·43.

## Genus **ZOSTEROPS**, Vigors & Horsf., 1826.

In the 'Catalogue of Birds in the British Museum' the genus *Zosterops* is placed by Gadow among the *Meliphagidæ*, but he remarks with regard to the *Zosteropinæ* that their degree of relationship with *Meliphagidæ* is doubtful and that they might, perhaps, with more propriety be ranged with the *Dicæidæ.*

Seeing, therefore, that the position of *Zosterops* is still doubtful and that none of the true *Meliphagidæ* are found in India, I am disposed for the present to place *Zosterops* with the *Sibiinæ*, with many genera of which subfamily it has undoubted affinities, especially with *Yuhina.*

In *Zosterops* the bill is about half the length of the head, slender, curved and pointed, and the nostrils are covered by a large membrane. The head is not crested. The eye is surrounded by a circle of small white feathers, which gives a characteristic appearance to the bird. The tongue, according to Gadow, is protractile, bifid, each half broken up into numerous stiff horny fibres so as to form a brush.

The wing has ten primaries, but the first is very minute, so minute as frequently to evade observation. This first primary, in addition to being small, appears to grow over the second one, not under it, and this makes it the more difficult to be detected. Its shaft is, however, always visible with a small lens. The tail of *Zosterops* is short and quite square.

This genus is represented over a considerable portion of Africa, Southern Asia, and Australia. The White-eyes are all small birds found in flocks on trees, the leaves of which they search for insects with a constant twitter. Several of the Indian species are very closely allied to one another in coloration and size.

### *Key to the Species.*

| | |
|---|---|
| *a.* Chin and throat yellow; abdomen grey. | |
| *a'.* Upper plumage golden yellow. | |
| *a''.* Abdomen entirely grey .............. | *Z. palpebrosa*, p. 214. |
| *b''.* Abdomen grey, with a yellow band down the middle ........................ | *Z. aureiventris*, p. 215. |
| *b'.* Upper plumage olive-green. | |
| *c''.* Yellow on the chin and throat pure and confined to those parts .............. | *Z. simplex*, p. 215. |
| *d''.* Yellow on the chin and throat tinged with green and extending to the breast. | *Z. ceylonensis*, p. 215. |
| *b.* The whole lower plumage yellow .......... | *Z. siamensis*, p. 216. |

### 226. **Zosterops palpebrosa.** *The Indian White-eye.*

Sylvia palpebrosa, *Temm. Pl. Col.* 293, fig. 3 (1824).
Zosterops nicobaricus, *Blyth, J. A. S. B.* xiv, p. 563 (1845).
Zosterops palpebrosus (*Temm.*), *Blyth, Cat.* p. 220; *Horsf. & M. Cat.* i, p. 263; *Jerd. B. I.* ii, p. 265; *Hume, N. & E.* p. 397; *Anders. Yunnan Exped., Aves,* p. 631; *Legge, Birds Ceyl.* p. 582; *Hume, Cat.* no. 631; *Scully, S. F.* viii, p. 322; *Davison, S. F.* x, p. 398; *Gadow, Cat. B. M.* ix, p. 165 (part.); *Barnes, Birds Bom.* p. 247; *Hume, S. F.* xi, p. 253; *Oates in Hume's N. & E.* 2nd ed. i. p. 140.
Zosterops nicobariensis, *Blyth, Hume, S. F.* ii, p. 242; iv, p. 291; *id. Cat.* no. 631 ter.
Zosterops palpebrosa nicobariensis, *Hume, S. F.* iv, p. 291.
*The White-eyed Tit,* Jerd.

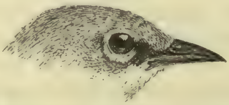

Fig. 63.—Head of *Z. palpebrosa.*

*Coloration.* The whole upper plumage, wing-coverts, and sides of the head golden yellow; the chin and throat bright yellow; breast, abdomen, and flanks greyish white; under tail-coverts yellow; wings dark brown, edged with greenish yellow; a ring of feathers round the eye white; feathers in front and below the eye black; tail brown, narrowly margined with greenish yellow.

Bill black; base of lower mandible bluish grey; irides yellowish hazel; feet dark plumbeous; claws brownish horny (*Scully*).

Length 4·2; tail 1·7; wing 2·1; tarsus ·6; bill from gape ·55.

*Varieties.* The race of this species from the Andamans and Nicobars is characterized by a very large bill, and it is difficult to find any bird from the peninsula with the bill equally large. As a few, however, are found, it is not desirable to separate the insular form. On examining the Burmese *Zosterops*, procured by myself in Pegu and by others in Tenasserim, I find that they all belong to the closely allied but easily recognizable *Z. simplex* of China.

*Distribution.* Every portion of India from Murree in the Hazára country to Sadiya in Assam, and southwards on the one hand to Ceylon and the Nicobars, and on the other to the neighbourhood of Bhámo in Upper Burma. Anderson's specimens from this latter district are typical *Z. palpebrosa.* In the Himalayas this species is found up to 7000 feet, and it occurs all over the higher hill-ranges of Southern India. It is stated by Blyth to extend to Arrakan, but at the time he wrote the other closely allied species which inhabit Burma had not been separated, and possibly Blyth was mistaken.

*Habits, &c.* Breeds, according to locality, from January to September, but April appears to be the month in which most nests may everywhere be found. The nest is a very delicate little cup made of vegetable fibres and cobwebs, suspended in a fork of a small branch at all heights from the ground. The eggs are generally two in number and pale blue without marks, but occasionally some eggs may be met with marked at the larger end with darker blue. The eggs measure about ·62 by ·47.

### 227. **Zosterops aureiventris.** *Hume's White-eye.*

Zosterops lateralis, *Temm., Hartlaub, Journ. f. Orn.* 1865, p. 15; *Tweedd. Ibis,* 1877, p. 303; *Hume, S. F.* vii, p. 452; *id. Cat.* no. 631 A (*nec Lath.*).

Zosterops palpebrosa (*Temm.*), *apud Bl. & Wald. Birds Burm.* p. 110, part.

Zosterops auriventer, *Hume, S. F.* vi, p. 519 (1878); viii, pp. 163, 497; *Oates, B. B.* i, p. 344; *Gadow, Cat. B. M.* ix, p. 163; *Salvadori, Ann. Mus. Civ. Gen.* (2), v, p. 592.

Zosterops buxtoni, *Nicholson, Ibis,* 1879, p. 167.

*Coloration.* Resembles *Z. palpebrosa.* Differs in having a broad yellow band down the middle of the abdomen and a shorter tail. The tail is seldom more than 1·4 in length and never exceeds 1·5. The greenish-yellow margins to the tail-feathers are reduced in extent and sometimes quite absent.

*Distribution.* I have examined specimens of this species from the Karen hills and Karennee procured by Wardlaw Ramsay, and others from Tavoy collected by Davison. I did not procure it in Pegu.

This bird extends down the Malay peninsula to the islands of Sumatra and Java.

### 228. **Zosterops simplex.** *Swinhoe's White-eye.*

Zosterops simplex, *Swinhoe, P. Z. S.* 1863, p. 203; *id. Ibis,* 1863, p. 294; *Hartl. Journ. f. Orn.* 1865, p. 13; *Hume, S. F.* vii, p. 403; *id. Cat.* no. 631 B; *Styan, Ibis,* 1887, p. 227.

Zosterops palpebrosa (*Temm.*), *apud Hume, S. F.* iii, p. 143; *apud Oates, S. F.* x, p. 227; *id. B. B.* i, p. 342.

*Coloration.* Resembles *Z. palpebrosa.* Differs in having the whole upper plumage olive-green instead of golden yellow. The dimensions of the two species are the same.

*Distribution.* I procured a few specimens of this bird in Lower Pegu round the town of Pegu, and it is probably this species that Feilden obtained at Thayetmyo. Blanford records it from East Nepal (J. A. S. B. xli, pt. 2, p. 157). It is found throughout Southern China.

### 229. **Zosterops ceylonensis.** *The Ceylon White-eye.*

Zosterops annulosus, *Kelaart, Prod.* p. 121 (*nec Swainson*).

Zosterops ceylonensis, *Holdsworth, P. Z. S.* 1872, p. 459, pl. 20, fig. 2; *Hume, S. F.* vii, p. 404; *Legge, Birds Ceyl.* p. 585, pl. xxvi, fig. 2; *Hume, Cat.* no. 631 bis; *Gadow, Cat. B. M.* ix, p. 173; *Oates in Hume's N. & E.* 2nd ed. i, p. 145.

*Coloration.* Upper plumage together with the sides of the neck olive-green; wings and tail dark brown edged with olive-green; a ring of white feathers round the eye; lores and under the eye blackish; chin, throat, upper breast, and under tail-coverts dull oil-yellow; lower breast and abdomen greyish white.

Iris yellowish brown or reddish brown or pale brownish yellow; bill blackish, with the base beneath bluish or pale slaty; legs and feet bluish or pale leaden (*Legge*).

Length about 4·5; tail 1·75; wing 2·2; tarsus ·65; bill from gape ·6.

*Distribution.* Ceylon, above 1500 feet of elevation.

*Habits, &c.* Breeds from March to May. The nest and eggs appear to resemble those of *Z. palpebrosa.* The eggs measure about ·64 by ·45.

### 230. **Zosterops siamensis.** *The Siamese White-eye.*

Zosterops siamensis, *Blyth, Ibis,* 1867, p. 34; *Walden, Ibis,* 1876, p. 350, pl. x, fig. 1; *Hume & Dav. S. F.* vi, p. 375; *Hume, Cat.* no. 631 quat.; *Oates, S. F.* x, p. 228; *id. B. B.* i, p. 343; *Gadow, Cat. B. M.* ix, p. 180; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 592.

Zosterops austeni, *Walden, in Blyth's Birds Burm.* p. 111 (1875); *Hume, S. F.* v, p. 56; *Hume & Dav. S. F.* vi, p. 376; *Hume, Cat.* no. 631 quint.

*Coloration.* Lores and a small patch under the eye black; a circle of feathers round the eye white; the whole plumage yellow, brightest below; wings and tail dark brown, each feather edged externally with yellow, narrowly on the primaries, broadly on the secondaries, and the yellow occupying nearly the whole of the tertiaries.

Iris light reddish brown; bill horn-colour, plumbeous at the base of the lower mandible and at the gape; mouth flesh-colour; feet and claws light plumbeous.

Length 4·2; tail 1·6; wing 2; tarsus ·55; bill from gape ·52.

*Distribution.* Southern Pegu, about the towns of Rangoon and Pegu; Karennee; Tenasserim, from Thatone to Amherst and Muleyit mountain; also Siam and Cochin China.

*Habits, &c.* This bird is found in forests and densely-wooded gardens in the tops of high trees. It goes about in flocks and has a low twittering note.

## Genus **IXULUS**, Hodgs., 1844.

The genus *Ixulus* contains three species which are found on the Himalayas and the hill-ranges of Assam and Burma.

*Ixulus* resembles *Yuhina* in everything except the shape of the bill, which in *Ixulus* is shorter, deeper, and more curved at the tip.

The birds of this genus are found in parties, frequenting the branches of trees and feeding on insects.

*Key to the Species.*

| | |
|---|---|
| *a.* Nape white ........................... | *I. occipitalis*, p. 217. |
| *b.* Nape without any white. | |
| *a'.* A chestnut collar on the hind neck ........ | *I. flavicollis*, p. 218. |
| *b'.* No chestnut collar on the hind neck ........ | *I. humilis*, p. 218. |

### 231. **Ixulus occipitalis.** *The Chestnut-headed Ixulus.*

Siva occipitalis, *Blyth, J. A. S. B.* xiii, p. 937 (1844).

Ixulus occipitalis (*Bl.*), *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 411; *Jerd. B. I.* ii, p. 259; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; xlv, pt. ii, p. 82; *Hume, N. & E.* p. 396; *id. Cat.* no. 624; *id. S. F.* xi, p. 251; *Sharpe, Cat. B. M.* vii, p. 613; *Oates in Hume's N. & E.* 2nd ed. i, p. 145.

*The Chestnut-headed Flower-pecker*, Jerd.; *Temgyeng-pho* or *Turring-ng-pho*, Lepch.

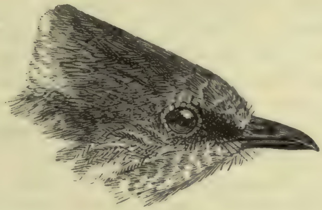

Fig. 64.—Head of *I. occipitalis.*

*Coloration.* Forehead and lengthened feathers of crest ferruginous brown; the tips of the occipital crest-feathers and a large nuchal spot white; lores and round the eye dusky; ear-coverts white streaked with rufous; with this exception the sides of the head and neck, the whole hind neck, and the cheeks ferruginous brown; back, rump, and visible portions of the wings dull olive-green, the shafts of the feathers of the back whitish, and the outer webs of the earlier primaries hoary grey; upper tail-coverts and tail brown suffused with fulvous; chin and throat white; breast pinkish brown streaked with brown; abdomen and flanks olivaceous, the middle of the former part paler; under tail-coverts ferruginous.

Bill black; legs pale yellowish brown; iris brown (*Jerdon*).

Length about 5; tail 2; wing 2·6; tarsus ·8; bill from gape ·6.

*Distribution.* The Himalayas from Nepal to the Daphla hills in Assam; the Khási hills.

*Habits, &c.* Gammie found the nest of this species in Sikhim on the 17th June, with three eggs. The nest was a shallow cup of fine moss-roots and moss, placed in a small tree.

### 232. **Ixulus flavicollis.** *The Yellow-naped Ixulus.*

Yuhina flavicollis, *Hodgs. As. Res.* xix, p. 167 (1836).
Ixulus flavicollis (*Hodgs.*), *Blyth, Cat.* p. 100; *Horsf. & M. Cat.* i, p. 262; *Jerd. B. I.* ii, p. 258; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; xlv, pt. ii, p. 82; *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Hume, N. & E.* p. 395; *Brooks, S. F.* iii, p. 252; *Hume, Cat.* no. 623; *Scully, S. F.* viii, p. 320; *Sharpe, Cat. B. M.* vii, p. 612; *Hume, S. F.* xi, p. 251; *Oates in Hume's N. & E.* 2nd ed. i, p. 145.

*The Yellow-naped Flower-pecker*, Jerd.; *Siripchong-pho*, Lepch.

*Coloration.* Forehead and lengthened feathers of crest rich brown; hinder part of crown, nape, and sides of the head mouse-grey, the lower part of the ear-coverts silvery; lores and moustachial streak black; a white ring of small feathers round the eye; a broad chestnut collar round the hind neck; upper plumage olive-brown, the shafts of the feathers of the back paler; upper tail-coverts tinged with fulvous; tail and wings brown suffused with the colour of the back, the primaries narrowly edged with white on the outer webs; chin and cheeks white; throat white, with a few narrow ochraceous streaks and frequently with dark shafts; middle of breast and abdomen pale fulvous; vent and under tail-coverts deep fulvous; sides of breast and abdomen ochraceous streaked with white; under wing-coverts white.

Upper mandible brownish black; lower mandible fleshy brown, greyish horny at base; iris light to dark brown, sometimes reddish brown; feet fleshy buff; claws pale brown-horny (*Scully*).

Length about 5; tail 2; wing 2·5; tarsus ·8; bill from gape ·6.

*Distribution.* The Himalayas from the Sutlej valley to Assam; the Khási hills; Manipur: from 5000 to 8000 feet of elevation.

*Habits, &c.* Breeds from May to July, constructing a deep cup-like nest of moss and fibres, which is suspended from one or two twigs of a branch. The eggs, usually three in number, are whitish marked with brown of various shades, and measure ·78 by ·56.

### 233. **Ixulus humilis.** *Davison's Ixulus.*

Ixulus humilis, *Hume, S. F.* v, p. 106 (1877); *Hume & Dav. S. F.* vi, p. 374; *Oates, B. B.* i, p. 149; *Sharpe, Cat. B. M.* vii, p. 614; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 602.
Staphidea humilis (*Hume*), *Hume, Cat.* no. 625 bis.

*Coloration.* Whole upper plumage and visible portions of the wings and tail, the sides of the head, and the lengthened crest plain brown; lores and a moustachial streak darker brown; sides of neck and whole lower plumage white, the chin, throat, and breast with very narrow brown shaft-streaks; the sides of the body, thighs, and under tail-coverts with broader streaks, increasing in size as they approach the tail; under wing-coverts white.

Upper mandible black; lower mandible pale brown; legs and feet fleshy brown; iris red-brown (*Hume & Davison*).

Length 5·2; tail 1·8; wing 2·4; tarsus ·8; bill from gape ·6.

*Distribution* The higher parts of Muleyit mountain in Tenasserim.

## Genus **HERPORNIS**, Hodgs., 1844.

The genus *Herpornis* contains only one species, found in the Himalayas and Burma, and extending down the Malay peninsula. This species is represented in China and Borneo respectively by two subspecies.

In *Herpornis* the bill is nearly as long as the head, slender but well bent down at the tip; the nostrils are covered by a few frontal hairs, and the rictal bristles are strong; the head is crested; the wing is rather long and pointed, and the tail is perfectly square. The plumage is green.

### 234. **Herpornis xantholeuca.** *The White-bellied Herpornis.*

Erpornis xantholeuca, *Hodgs. J. A. S. B.* xiii, p. 380 (1844); *Blyth, Cat.* p. 101; *Horsf. & M. Cat.* i, p. 232; *Jerd. B. I.* ii, p. 264; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109.

Erpornis xanthochlora, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844); *id. P. Z. S.* 1845, p. 23; *Hume, S. F.* iii, p. 142.

Herpornis xantholeuca (*Hodgs.*), *Blanf. J. A. S. B.* xli, pt. ii, p. 167; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 83; *Hume & Dav. S. F.* vi, pp. 374, 519; *Anders. Yunnan Exped., Aves*, p. 630; *Hume, Cat.* no. 630; *Bingham, S. F.* ix, p. 190; *Inglis, S. F.* ix, p. 256; *Oates, S. F.* x, p. 227; *id. B. B.* i, p. 151; *Sharpe, Cat. B. M.* vii, p. 636; *Hume, S. F.* xi, p. 252.

*The White-bellied Flower-pecker*, Jerd.; *Dang-pu-pho*, Lepch.

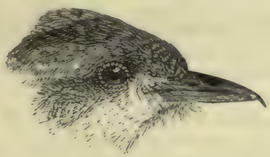

Fig. 65.—Head of *H. xantholeuca.*

*Coloration.* The whole upper plumage, tail, wing-coverts, and tertiaries clear greenish yellow; primaries and secondaries edged with the colour of the back; lores, cheeks, and the lower plumage white slightly tinged with grey; ear-coverts ashy white; under wing-coverts pale yellow; under tail-coverts bright yellow.

Upper mandible fleshy horn-colour, the edges and the whole lower mandible light flesh-colour; gape yellow; mouth yellow; eyelids plumbeous; iris brown; legs and claws pinkish flesh-colour.

Length nearly 5; tail 1·8; wing 2·7; tarsus ·65; bill from gape ·6.

*Distribution.* The Himalayas from Nepal to Assam; the hill-ranges of Assam; Cachar; Manipur, and the whole of Burma;

extending down the Malay peninsula. This bird does not appear to be found above 4000 or 5000 feet of elevation. In Burma it is as common at the level of the sea as on the hills.

*Habits, &c.* This species is found in thick forests in companies of ten or more, searching the leaves for insects.

## Subfamily LIOTRICHINÆ.

The *Liotrichinæ* comprise those members of the *Crateropodidæ* which are strictly arboreal, and in which the sexes are differently coloured. The first character separates them from the *Brachypteryginæ*, and the second from all the other subfamilies.

The genera *Aethorhynchus* and *Ægithina* have two moults a year, and thus show affinities with the *Sylviidæ*. The other genera have only the usual autumn moult.

The genera *Cephalopyrus* and *Hypocolius* are migratory to some extent. The other genera are sedentary.

All the *Liotrichinæ*, so far as is known, lay spotted eggs. *Minla* and *Myzornis* may prove to be exceptions to this general rule, but the evidence regarding these two genera is incomplete and unsatisfactory so far as it goes.

### *Key to the Genera.*

- *a*. First primary about half the length of second.
  - *a*′. Tail considerably shorter than wing.
    - *a*″. The secondaries falling short of tip of wing by a distance not greater than half the length of tarsus.
      - *a*‴. Tail-feathers curved outwards .. Liothrix, p. 221.
      - *b*‴. Tail-feathers straight.
        - $a^4$. Upper tail-coverts falling short of tip of tail by less than the length of hind toe .......... Cutia, p. 222.
        - $b^4$. Upper tail-coverts falling short of tip of tail by about the length of tarsus.
          - $a^5$. Tarsus much longer than middle toe with claw.
            - $a^6$. Bill stout, strongly notched and hooked at tip.
              - $a^7$. Bill about half the length of head; culmen well curved .............. Pteruthius, p. 223.
              - $b^7$. Bill as long as the head; culmen nearly straight . Aethorhynchus, p. 228.
            - $b^6$. Bill slender and very little deflected at tip.
              - $c^7$. Width of bill behind the nostrils equal to half the length of bill from that point to tip .......... Ægithina, p. 229.

$d^7$. Width of bill behind the nostrils equal to a third of length of bill ...... MYZORNIS, p. 233.
$b^5$. Tarsus shorter than middle toe with claw ............ CHLOROPSIS, p. 234.
$b'''$. The secondaries falling short of the tip of wing by a distance fully equal to length of tarsus.
$c'''$. Head not crested; tail square .. IRENA, p. 239.
$d'''$. Head crested; tail graduated.... MELANOCHLORA, p. 241.
$b'$. Tail and wing about equal in length.
$c''$. Outer tail-feather falling short of tip of tail by a distance equal to length of tarsus ...................... HILAROCICHLA, p. 243.
$d''$. Outer tail-feather falling short of tip of tail by a distance less than half the length of tarsus.
$e'''$. Bill notched.
$c^4$. Depth of closed bill at the anterior corner of nostril much greater than the width at same. MESIA, p. 244.
$d^4$. Depth at same point equal to the width .................. MINLA, p. 245.
$f'''$. Bill entire .................. LEPTOPŒCILE, p. 246.
$b$. First primary about a sixth the length of the second.
$c'$. Tail shorter than wing.
$e''$. Nostrils overhung by numerous fine hairs ............................ CEPHALOPYRUS, p. 247.
$f''$. Nostrils not overhung by hairs .... PSAROGLOSSA, p. 248.
$d'$. Tail longer than wing .............. HYPOCOLIUS, p. 250.

## Genus **LIOTHRIX**, Swains., 1831.

The genus *Liothrix* contains one remarkable hill-bird which is characterized by a slightly forked tail, the feathers of which are bent outwards. The bill is about half the length of the head, stout, and with the culmen curved. It resembles very closely the bill of *Mesia* figured below (p. 244). The tail is quite square at the tip, and the upper tail-coverts are long.

### 235. **Liothrix lutea.** *The Red-billed Liothrix.*

Sylvia lutea, *Scop. Del. Flor. et Faun. Insubr.* ii, p. 96 (1786).
Bahila callipyga, *Hodgs. Ind. Rev.* 1838, p. 88.
Leiothrix luteus (*Scop.*), *Blyth, Cat.* p. 99; *Horsf. & M. Cat.* i, p. 364; *Jerd. B. I.* ii, p. 250; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 169; *Oates, B. B.* i. p. 142; *Hume, S. F.* xi, p. 247.
Leiothrix callipyga (*Hodgs.*), *Hume, N. & E.* p. 390; *Gammie, S. F.* iii, p. 266; *Anders. Yunnan Exped., Aves*, p. 629.
Liothrix lutea (*Scop.*), *Blyth, Birds Burm.* p. 109; *Hume, Cat.* no. 614; *Sharpe, Cat. B. M.* vii, p. 644; *Oates in Hume's N. & E.* 2nd ed. i, p. 147.

*The Red-billed Hill-Tit*, Jerd.; *Nanachura*, Dehra Doon; *Rapchil-pho*, Lepch.

*Coloration. Male.* The whole upper plumage and sides of the neck olive-green, the forehead and crown tinged with yellow and the longer tail-coverts tipped with white; middle pair of tail-feathers and the outer webs of the others black; the inner webs brown; the primaries edged with yellow and later on with crimson; the secondaries black, with a patch of orange-yellow at the base of the outer web of each; tertiaries olive-green tinged with rufous; lores orange-yellow; a ring round the eye yellow; ear-coverts silvery grey; a narrow moustachial streak dusky green; chin and throat bright yellow, turning to deep orange-yellow on the lower throat; centre of breast and abdomen and the vent and under tail-coverts yellow; sides of breast and abdomen slaty green.

*Female.* The crimson on the primaries of the male is replaced by orange-yellow. No other difference.

Bill coral-red at tip, black at base; legs yellow-brown (*Cockburn*); iris brown (*Jerdon*).

Length about 6; tail 2·3; wing 2·75; tarsus 1; bill at gape ·6.

*Distribution.* The Himalayas from Simla to Bhutan; the Khási hills; the Kakhyen hills near Bhámo in Upper Burma; Arrakan. This bird is found from 5000 to 8000 feet or lower. It extends into China.

*Habits, &c.* Dr. Jerdon states that this species usually associates in small parties of five or six, frequenting the dense thickets and underwood that springs up wherever the forest is partially cleared. It is a shy bird, and avoids observation in general. Its food consists of berries, fruits, seeds, and insects. Its usual note is a chattering call; but in the spring the male has a very pleasing song.

This bird makes a cup-shaped nest of dry leaves and moss bound together with grass and roots, and generally placed in a leafy bush, at no great height from the ground. The number of eggs is usually three; they are pale green, spotted and otherwise marked with red, purple, and brown; they measure about ·85 by ·62.

## Genus **CUTIA**, Hodgs., 1836.

The genus *Cutia* is remarkable for the great development of the tail-coverts, which reach nearly to the tip of the tail. The genus contains only one species, both sexes of which are very handsomely coloured.

In *Cutia* the bill is rather slender, curved, notched, pointed, and slightly longer than half the length of the head; the rictal bristles are very short; the nostrils are longitudinal and covered by a membrane; the frontal feathers are short and firm. The tail is about two thirds the length of the wing and slightly rounded.

### 236. **Cutia nepalensis.** *The Nepal Cutia.*

Cutia nipalensis, *Hodgs. J. A. S. B.* v, p. 774 (1836); *Blyth, Cat.* p. 98; *Horsf. & M. Cat.* i, p. 227; *Jerd. B. I.* ii, p. 247; *Wald.*

*in Blyth's Birds Burm.* p. 109; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 81; xlvii, pt. ii, p. 19; *Hume & Dav. S. F.* vi, p. 370; *Hume, Cat.* no. 612; *Oates, B. B.* i. p. 140; *Sharpe, Cat. B. M.* vii, p. 646; *Hume, S. F.* xi. p. 245.

*The Yellow-backed Shrike-Tit*, Jerd.; *Khatya*, Nepal; *Rabnoon* or *Rapnun-pho*, Lepch.

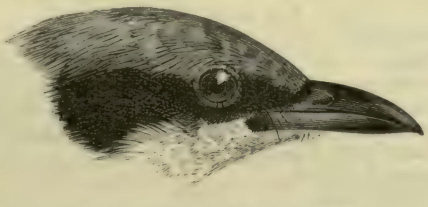

Fig. 66.—Head of *C. nepalensis*.

*Coloration. Male.* The lores, sides of forehead, and a broad band passing through the eyes and ear-coverts round the nape black; the whole crown inside this black band deep slaty; back, scapulars, rump, and upper tail-coverts bright chestnut; wing-coverts black; quills black, all but the first two with a patch of slaty near the base, increasing in extent inwards, and the third to the sixth or seventh primary with a narrow edging of the same about the middle of the outer web; most of the later quills minutely tipped with white; tail black; lower plumage white, the sides of the body boldly barred with black; vent and under tail-coverts pale buff.

*Female.* The slaty colour of the head paler; the band round the head chocolate-brown; the back and scapulars reddish brown with large oval black spots; otherwise as in the male.

Legs and feet rich wax-yellow; claws pale yellowish horny; bill black, pale leaden blue at gape and base of lower mandible; iris brown (*Hume*).

Length about 7; tail 2·2; wing 3·7; tarsus 1·2; bill from gape ·9.

*Distribution.* The Himalayas from Nepal to the Daphla hills in Assam; Eastern Nága hills; Manipur; Karennee; apparently at 6000 feet and upwards.

*Habits, &c.* Gregarious, on high trees.

## Genus **PTERUTHIUS**, Swains., 1831.

The genus *Pteruthius* contains five Indian species with the general external appearance of Shrikes.

The bill is about one half the length of the head, strong, strongly hooked at the tip, and with the margins sinuated; the rictal bristles are weak. The nostrils are oval and partially covered by the frontal bristles, which are well developed. The feathers of the crown are somewhat ample, but they do not form a crest.

The wing is rounded; the tail is about two thirds the length of the wing and slightly rounded, and its coverts reach to about the middle of the tail. The tarsus is strong and smooth.

The birds of this genus are entirely arboreal, being found in flocks traversing the highest trees. They are confined to the hilly portions of the country, and feed upon both insects and berries.

*Key to the Species.*

| | |
|---|---|
| *a.* Tertiaries chestnut. | |
| *a'.* Crown black | *P. erythropterus* ♂, p. 224. |
| *b'.* Crown bluish grey | *P. erythropterus* ♀, p. 224. |
| *b.* Tertiaries golden yellow | *P. æralatus* ♂, p. 225. |
| *c.* Tertiaries green tipped with chestnut | *P. æralatus* ♀, p. 225. |
| *d.* Tertiaries bluish grey or green. | |
| *c'.* Crown greenish yellow. | |
| *a''.* Nape bluish ashy. | |
| *a'''.* Tips of wing-coverts white | *P. melanotis* ♂, p. 226. |
| *b'''.* Tips of wing-coverts salmon-colour | *P. melanotis* ♀, p. 226. |
| *b''.* Nape greenish yellow. | |
| *c'''.* Tips of wing-coverts white | *P. intermedius* ♂, p. 227. |
| *d'''.* Tips of wing-coverts salmon-colour | *P. intermedius* ♀, p. 227. |
| *d'.* Crown blackish | *P. xanthochloris* ♂, p. 227. |
| *e'.* Crown dark grey | *P. xanthochloris* ♀, p. 227. |

237. **Pteruthius erythropterus.** *The Red-winged Shrike-Tit.*

Lanius erythropterus, *Vigors, P. Z. S.* 1831, p. 22; *Gould, Cent.* pl. 11.

Pteruthius erythropterus (*Vig.*), *Blyth, Cat.* p. 99; *Horsf. & M. Cat.* i, p. 172; *Jerd. B. I.* ii, p. 245; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 49; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 108; *Cock & Marsh. S. F.* i, p. 356; *Hume, N. & E.* p. 389; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 81; *Hume, Cat.* no. 609; *id. S. F.* xi, p. 243; *Oates in Hume's N. & E.* 2nd ed. i, p. 150.

Ptererythrius erythropterus (*Vig.*), *Gadow, Cat. B. M.* viii, p. 113.

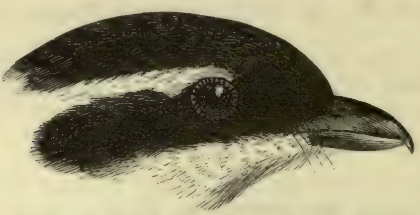

Fig. 67.—Head of *P. erythropterus.*

*Coloration. Male.* Forehead, crown, nape, lores, ear-coverts, and under the eye black; a broad white supercilium from the eye to the nape; upper plumage bluish grey, some of the upper tail-coverts tipped black; tail and wing-coverts black; primaries and secondaries dark brown, edged with glossy black and tipped white; tertiaries chestnut; lower plumage very pale greyish white, the sides of the throat, the centre of the abdomen, vent, and under tail-coverts pure white; lower part of the flanks pale rusty; under wing-coverts white.

*Female.* The forehead, crown, nape, and sides of the head bluish grey, the ear-coverts with paler shafts, the lores and round the eye more or less dusky; indications of a white supercilium, very ill-defined; upper plumage olive-grey; smaller wing-coverts black edged with yellowish; greater coverts yellow on the outer webs, black on the inner; primary-coverts and winglet black; the earlier primaries edged with hoary grey, the other quills edged with yellow; tertiaries chestnut; central tail-feathers green, the others black, with the greater portion of the outer webs green and tipped yellow; lower plumage entirely pale buff.

The young resemble the female, and the male assumes the adult plumage in the September of the first year.

Legs and feet fleshy, in some pinker, in some whiter; claws a darker or paler brown; soles yellowish; lower mandible and edges of upper from gape to below nares pale blue or plumbeous; rest of upper mandible black, occasionally horny black; irides greyish lavender, deep grey, deep blue-grey, greenish grey, grey-blue, pearly blue-grey, pale green speckled with white, and varying a little in every specimen (*Hume*). Iris amber (*Godwin-Austen*).

Length 6·5 to 8; tail about 2·5; wing 3·3; tarsus 1·1; bill from gape ·85.

*Distribution.* The Himalayas from the Hazára country to Assam; the Khási and Nága hills; Manipur. From 2500 (*Jerdon*) to 10,000 feet (*Stoliczka*).

*Habits, &c.* Breeds in May, constructing a cradle-like nest of moss and hair in a fork of a branch near the top of a high tree. The eggs, usually three in number, are whitish speckled with brownish red and purple. One egg measured ·9 by ·68.

### 238. **Pteruthius æralatus.** *Tickell's Shrike-Tit.*

Pteruthius æralatus, *Tick. J. A. S. B.* xxiv, p. 267 (1855); *Anders. Yunnan Exped., Aves*, p. 628, pl. xlvii; *Hume & Dav. S. F.* vi, p. 368; *Hume, Cat.* no. 610 bis; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 599.

Pterythrius æralatus, *Tick., Blyth & Wald. Birds Burm.* p. 109.

Ptererythrius æralatus, *Tick., Oates, B. B.* i, p. 137; *Gadow, Cat. B. M.* viii, p. 114.

*Coloration.* Resembles *P. erythropterus.* The male differs in having the tertiaries golden yellow, tinged with red internally and tipped black; the lower plumage much greyer, the lower part of the abdomen, vent, and under tail-coverts alone being white.

The female differs in having the tertiaries green, tipped with chestnut, and the back grey.

Legs and feet fleshy white; claws pale brown to black; lower mandible and basal edges of the upper mandible along commissure pale blue; rest of bill black; iris varied considerably, slaty-grey, pale greenish blue, and deep brown (*Hume & Davison*).

Length about 6·5; tail 2·3; wing 3·1; tarsus 1·1; bill from gape ·85.

*Distribution.* The Kakhyen hills east of Bhámo; Karennee and the Karen hills east of Toungngoo; Muleyit mountain in Tenasserim; also the mountains of Perak in the Malay peninsula.

Count Salvadori (*l. c.*) has shown that his *P. cameanoi* from Sumatra is distinct from the present species.

239. **Pteruthius melanotis.** *The Chestnut-throated Shrike-Tit.*

Pteruthius melanotis, *Hodgs. J. A. S. B.* xvi, p. 448 (1847); *Oates in Hume's N. & E.* 2nd ed. i, p. 151.
Pteruthius ænobarbus (*Temm.*), *apud Horsf. & M. Cat.* i, p. 172.
Allotrius ænobarbus, *Temm., apud Jerd. B. I.* ii, p. 246 (part.); *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 108.
Allotrius melanotis (*Hodgs.*), *Hume, N. & E.* p. 390; *Hume & Dav. S. F.* vi, p. 369; *Hume, S. F.* vii, p. 456; *id. Cat.* no. 611; *id. S. F.* xi, p. 244.
Ptererythrius melanotis (*Hodgs.*), *Oates, B. B.* i, p. 139; *Gadow, Cat. B. M.* viii, p. 117.

*Ku-er-pho*, Lepch.

*Coloration. Male.* The forehead, crown, back, scapulars, rump, and upper tail-coverts greenish yellow; a ring of white feathers round the eye; ear-coverts yellow; a spot on each side of the neck behind the ear-coverts black; the whole nape between these black spots bluish ashy; a broad supercilium bluish white; lores, continued in two lines, one over the eye and one below, meeting behind the eye, black; chin and throat deep chestnut, extending down to the upper part of the breast; remaining lower plumage bright yellow; middle tail-feathers green, tipped with black; the next four pairs black, tipped with white, the tips increasing in size towards the outside of the tail; the outermost feathers wholly white; wings brown, edged with bluish grey; the tertiaries wholly bluish grey, and all the quills except the earlier primaries tipped with white; lesser wing-coverts black, edged with grey; greater coverts black, broadly tipped with white; primary-coverts and winglet black.

*Female.* Resembles the male closely; differs in having the tips to the greater wing-coverts salmon-colour instead of white; the chestnut of the throat restricted and not descending to the breast; and in having the lores and the ophthalmic lines pale brown instead of black.

The young resemble the female, but the upper plumage is olive-brown, and the grey nape and black lines on the sides of the head are wanting; the lower plumage is yellowish white. All the characteristic wing-marks are present from the earliest age.

Bill plumbeous; iris light brown; legs and feet fleshy white (*Chennell*).

Length about 4·7; tail 1·8; wing 2·5; tarsus ·8; bill from gape ·55.

*Distribution.* The Himalayas from Nepal to Assam; the Khási and Eastern Nága hills; Manipur. Found at high elevations, 7000 feet or so.

*Habits, &c.* According to Hodgson this bird makes a shallow cup-like nest of moss and fibres suspended in the fork of a branch of a tree. The eggs are pinky lilac, speckled with violet, and measure about ·77 by ·49.

### 240. **Pteruthius intermedius.** *Hume's Shrike-Tit.*

Allotrius melanotis (*Hodgs.*), *Blyth, Birds Burm.* p. 109.
Allotrius intermedius, *Hume, S. F.* v, p. 112 (1877); *Hume & Dav. S. F.* vi, p. 370; *Hume, Cat.* no. 611 bis; *Salvadori, Ann. Mus. Civ. Gen.* (2) v. p. 600.
Ptererythrius intermedius (*Hume*), *Oates, B. B.* i, p. 140; *Gadow, Cat. B. M.* viii, p. 117.

*Coloration.* Resembles *P. melanotis.* The male differs in having the forehead deep chestnut like the throat, and above and next to it a bright yellow band; the grey nape and the black neck-patches are absent; the outermost tail-feathers are not entirely white, but have a streak of black near the tips of the outer webs; the first and second primaries are entirely black; the next four are black at the base and white on the remainder of the outer webs; the others have progressively more black at the base, and the other portions of the outer webs green.

The female differs in having the forehead rufous and the grey on the nape absent; the lower plumage pale yellow; the wings edged with green, except the earlier primaries, which are edged with pale yellowish.

Lower mandible and edge of upper pale blue; rest of upper mandible black; iris brown; legs, feet, and claws fleshy (*Hume*).

Of the same size as *P. melanotis.*

*Distribution.* Toungngoo; the upper slopes of Muleyit mountain in Tenasserim; the Thoungyeen valley. Blyth, who did not discriminate this and the preceding species, wrongly recorded *P. melanotis* from Toungngoo.

### 241. **Pteruthius xanthochloris.** *The Green Shrike-Tit.*

Pteruthius xanthochloris, *Hodgs. J. A. S. B.* xvi, p. 448 (1847).
Allotrius ænobarbus, *Temm., apud Jerd. B. I.* ii, p. 246 (part.).
Allotrius, sp., *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 50.
Allotrius xanthochloris (*Hodgs.*), *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Hume, S. F.* vii, p. 456; *id. Cat.* no. 611 ter.
Ptererythrius xanthochloris (*Hodgs.*), *Gadow, Cat. B. M.* viii, p. 118.

*Coloration. Male.* The forehead, lores, the sides of the crown, and round the eye dark grey; crown and nape blackish, with traces of grey among the feathers; ear-coverts, sides of neck, back, scapulars, rump, and upper tail-coverts green; lesser wing-coverts brown, edged with green; greater coverts brown, edged with green and tipped with yellowish; primary-coverts black; wings dark brown, edged with green exteriorly; tail brown, suffused with green on the outer webs, tipped white, and the outer web of the outermost feather whitish; chin, throat, and breast pale ashy, smeared in places with yellow; remaining lower plumage, under wing-coverts, and axillaries bright yellow.

*Female.* Differs in having the crown and nape of the same dark grey as the forehead; lores, sides of the crown, and round the eye without any trace of black.

Iris dark grey-brown; lower mandible and upper mandible along the commissure pale plumbeous; rest of upper mandible black; legs, feet, and claws fleshy, tinged plumbeous (*Davison*).

Length about 5; tail 1·9; wing 2·5; tarsus ·8; bill from gape ·55.

Birds from Nepal and Sikhim have the head much darker than birds from the N.W. Himalayas.

*Distribution.* The Himalayas from the Sutlej valley to Sikhim, at elevations up to 9000 feet.

## Genus **AETHORHYNCHUS**, Sundevall, 1872.

This genus is usually placed with the *Brachypodinæ*, but I cannot discover that it has any close affinities with the Bulbuls.

The birds of this genus have a moult in February in addition to the autumn moult. From February to June the sexes are very differently coloured, but at other times of the year they resemble each other. The colours of the female are not changed by the February moult. The young males resemble the female for some months, and probably assume the male garb in January.

In this genus the bill is very strong, nearly as long as the head, with the culmen nearly straight and the tip strongly notched and hooked; the nostrils are long ovals, and the rictal bristles are weak. The tail is almost square at the end.

### 242. **Aethorhynchus lafresnayii.** *The Great Iora.*

Iora lafresnayei, *Hartlaub, Rev. Zool.* 1844, p. 401; *Stoliczka, J. A. S. B.* xxxix, pt. ii, p. 309; *Bl. & Wald. Birds Burm.* p. 137; *Hume, S. F.* v, p. 423; *Hume & Dav. S. F.* vi, pp. 328, 516; *Hume, Cat.* no. 468 quat.; *Bingham, S. F.* ix, p. 184.
Iora innotata, *Blyth, J. A. S. B.* xvi, p. 472 (1847); *id. Cat.* p. 213.
Phœnicomanes iora, *Sharpe, P. Z. S.* 1874, p. 427, pl. liv.
Aethorhynchus lafresnayii (*Hartl.*), *Sharpe, Cat. B. M.* vi, p. 14; *Oates, B. B.* i, p. 204.

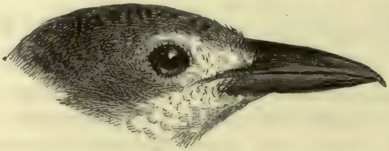

Fig. 68.—Head of *A. lafresnayii.*

*Coloration. Male.* In breeding-plumage (February to June) the upper plumage is dull green, each feather more or less black at the extreme tip; wings, tail, and upper tail-coverts deep black, the primaries and outer secondaries very narrowly edged with greenish on the outer, and more broadly with white on the inner webs; lores, cheeks, a ring round the eye, and the whole lower plumage bright yellow.

The male at other times (July to January) has the upper plumage, wing-coverts, and tertiaries dull green; the tail greenish yellow; primaries and secondaries dark brown, edged with greenish yellow; lores, cheeks, round the eye, and the entire lower plumage bright yellow.

*Female.* Resembles the male in the plumage last described.

Young males with the tail green and the tertiaries mingled black and greenish yellow are not uncommon.

Iris dark brown; bill leaden blue, the culmen dark horny; legs and feet leaden blue; claws horny (*Hume Coll.*).

Length about 6·5; tail 2·2; wing 2·75; tarsus ·8; bill from gape 1.

*Distribution.* Arrakan (*Blyth*); the southern portion of Tenasserim from Mergui to Bankasun and the Thoungyeen valley. Tickell obtained this bird near Ye in Tenasserim. It extends down the Malay peninsula.

An allied species from Siam is *A. xanthotis*, which has the ear-coverts and the tips of the wing-coverts yellow.

*Habits, &c.* Frequents gardens and forests, going about singly or in pairs, searching the leaves of trees for insects and uttering a fine whistling call.

## Genus **ÆGITHINA**, Vieill., 1816.

The genus *Ægithina*, allied to the last genus, is equally, in my opinion, removed from the Bulbuls.

All the species of *Ægithina* have two moults in the year. The females in all cases remain unchanged in colour by the moults, but the males in some cases have a very distinct summer and winter plumage.

In *Ægithina* the bill is about two thirds the length of the head, with the culmen nearly straight; the bill is notched and pointed. The wing is very rounded and the tail short and square. The plumage of the rump is remarkably soft and copious, and the males are in the habit at times of puffing it out.

All the species are green and yellow, and they have a close resemblance one to the other.

### *Key to the Species.*

*a.* Tail black or green throughout.
  *a'*. Upper plumage either greenish yellow or black or a mixture of both............ *Æ. tiphia*, p. 230.
  *b'*. Upper plumage entirely dark green...... *Æ. viridissima*, p. 231.
*b.* Tail tipped with white .................. *Æ. nigrilutea*, p. 232.

### 243. Ægithina tiphia. *The Common Iora.*

Motacilla tiphia, *Linn. S. N.* i, p. 331 (1766).
Motacilla zeylonica, *Gm. S. N.* i, p. 964 (1788).
Iora zeylonica (*Gm.*), *Blyth, Cat.* p. 213; *Horsf. & M. Cat.* i, p. 267; *Jerd. B. I.* ii, p. 101; *Hume, Cat.* no. 467.
Iora typhia (*Linn.*), *Blyth, Cat.* p. 214; *Horsf. & M. Cat.* i, p. 266; *Jerd. B. I.* ii, p. 103; *Hume, S. F.* v, p. 428; *Anders. Yunnan Exped., Aves,* p. 660; *Legge, Birds Ceyl.* p. 490; *Hume, Cat.* no. 468; *id. S. F.* xi, p. 185; *Barnes, Birds Bom.* i, p. 190.
Ægithina tiphia (*L.*), *Sharpe, Cat. B. M.* vi, p. 7; *Oates, B. B.* i, p. 202; *Oates in Hume's N. & E.* 2nd ed. i, p. 151.

*The Black-headed Green Bulbul, The White-winged Green Bulbul,* Jerd.; *Shoubiga* or *Shoubigi*, Hind.; *Patsu-jitta*, Tel.; *Pacha-pora*, Tam.; *Chah-tuk, Taphika, Fatickja tonfik*, Beng.

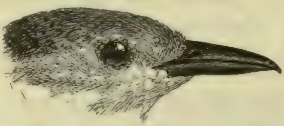

Fig. 69.—Head of *Æ. tiphia.*

*Coloration. Male.* In full summer plumage the lores, forehead, crown, and back are black, the bases of the feathers on the back yellow and showing through the black; rump greenish yellow; upper tail-coverts and tail black; lesser wing-coverts black; median ones white; greater ones black, tipped with white; quills black, narrowly edged with pale yellow; sides of the head and neck, chin, throat, and breast deep intense yellow; abdomen, sides, vent, and under tail-coverts dull greenish yellow. The back is sometimes yellow merely fringed with black, and the head is sometimes not quite black but yellow much mixed with black.

The male in winter loses all or most of the black on the upper parts except on the tail and wings, and becomes yellowish green.

*Female.* At all seasons the upper plumage is green; the tail greener and duskier, the edges yellowish; lesser wing-coverts green; median coverts dusky green, broadly tipped with white; greater coverts dusky green, the outer ones broadly tipped with white, the inner broadly edged with white on the outer webs; quills dark brown, edged with pale yellow; lores, sides of the head, and entire under plumage yellow.

Iris yellowish white; lower mandible and the margins of the upper nearly to the tip blue; remainder of upper mandible black; feet and claws plumbeous.

Length 5·4; tail 2; wing 2·4; tarsus ·75; bill from gape ·7.

Throughout its great range the Common Iora is subject to variations in its plumage, which appear to be due chiefly, if not entirely, to climatic influences.

The females may be dismissed with the remark that they do not vary in any appreciable degree either locally or seasonally.

Young birds resemble the female, and young males begin to acquire the adult summer plumage in the first spring, but do not acquire it in its entirety the first summer, and consequently young males of every degree of blackness are met with in the summer.

Adult males in summer plumage vary excessively according to locality. In Southern India, Ceylon, and the Malay peninsula the upper plumage, except the rump, is often unbroken black, and these birds retain traces of black on the upper plumage in winter. In all other parts of its range the adult in summer has a variable amount of black on the upper plumage. Sometimes the nape and back are entirely black, in other cases the crown and nape are black and the back fringed with black, and in others again there is nothing but a few patches of black here and there. These birds lose all the black in the winter except on the wings and tail.

In a portion of the Central Provinces, as pointed out by Hume, the females are duller coloured than those from other parts, and the male in winter plumage is without any black on the head and back; but in the summer the male is almost as black as specimens from Southern India and Ceylon.

*Distribution.* The whole Empire with Ceylon except that portion of India which lies west of a line, roughly speaking, drawn from the head of the Gulf of Cambay through Abu to Dehra. This species does not appear to ascend the hills to a greater height than 3000 feet.

*Habits, &c.* This bird frequents orchards, low trees, and brushwood, feeding on insects which are found among the leaves. It commences to breed in May, or probably earlier, making a beautiful cup-shaped nest of very small size, which it fixes in the fork or on the bough of a small tree at no great height from the ground. The nest is made of fine fibres and grass, and coated outside with cobwebs. The eggs, usually three in number, are greyish white, streaked with brown and reddish brown, and measure ·69 by ·54.

### 244. **Ægithina viridissima.** *The Green Iora.*

Iora scapularis, *Horsf., apud Blyth, Cat.* p. 214; *apud Horsf. & M. Cat.* i, p. 265 (part.).
Iora viridissima, *Bonap. Consp. Av.* i, p. 397 (1850); *Hume, S. F.* v, p. 427; *Hume & Dav. S. F.* vi, p. 327; *Hume, Cat.* no. 468 ter.
Ægithina viridissima (*Bp.*), *Tweedd. Ibis,* 1877, p. 304, pl. v; *Sharpe, Cat. B. M.* vi, p. 6; *Oates, B. B.* i, p. 201.

*Coloration. Male.* The whole plumage dark green, becoming yellow on the lower abdomen and vent; lores blackish; feathers immediately above and below the eyes bright yellow; under tail-coverts pure yellow; under wing-coverts white; tail glossy black; wing-coverts black, broadly tipped with white, which forms two wing-bars; quills black, all narrowly edged with green; the tertiaries also broadly edged on both webs with white.

*Female.* The upper plumage dark green, almost as dark as in the male; the tail green, paler than the back, and narrowly edged with yellow; the lores and sides of the head are greenish yellow, and consequently the yellow edging is not so conspicuous as in the male; the whole lower plumage light yellowish green; wing-coverts brown, broadly tipped and edged with pale yellow; quills blackish brown, edged with greenish yellow.

There is no seasonal change of plumage in either sex, although there are two moults in the year.

Legs and feet plumbeous blue; claws black; lower mandible, gape, and a line on each side of the upper mandible dark plumbeous blue; rest of upper mandible black or blackish brown; irides dark to reddish brown (*Davison*).

Length about 5; tail 1·8; wing 2·4; tarsus ·7; bill from gape ·75.

*Distribution.* A straggler to the southern portion of Tenasserim. It is found in the Malay peninsula, Borneo, and Sumatra.

### 245. **Ægithina nigrilutea.** *Marshall's Iora.*

Iora nigrolutea, *G. F. L. Marshall, S. F.* iv, p. 410 (1876); *Hume, S. F.* v, pp. 134, 441, vii, p. 454; *id. Cat.* no. 468 bis.
Ægithina nigrolutea (*Marsh.*), *Sharpe, Cat. B. M.* vi, p. 12.

*Coloration. Male.* In summer plumage the forehead, crown, nape, and lores are black; upper back bright yellow, delicately fringed with black; lower back the same, but with more black; upper tail-coverts black; tail black, broadly tipped with white; lesser coverts and scapulars black; median coverts white; greater coverts black, tipped with white; quills black, narrowly margined with greenish, the secondaries and tertiaries tipped white; sides of the head and neck and the whole lower plumage bright yellow; under wing-coverts white.

In winter the male has the upper plumage entirely dull greenish yellow, with, as a rule, a few black marks on the crown; the other parts of the plumage are the same as in summer.

*Female.* The whole upper plumage greenish yellow; the upper tail-coverts black, fringed with green; a bright yellow ring round the eye; sides of the head and the whole lower plumage yellow; the wings and tail as in the male, but the black is not so intense; the white parts are tinged with yellow in places, and the terminal half of the middle pair of tail-feathers is nearly all white tinged with ashy.

Legs and feet light plumbeous; bill horny; iris dark (*Hume*).

Length nearly 5·5; tail 1·8; wing 2·5; tarsus ·7; bill from gape ·6.

*Distribution.* Cutch; the eastern half of Rajputana; the southern portion of the Punjab; the North-West Provinces; Malwa; Bundelkhand; the northern portion of the Central Provinces; Eastern Bengal as far east, at least, as Mudhupur in the Sonthal Pergunnahs.

*Habits, &c.* Nothing in particular is on record regarding the habits of this species, which, however, are not likely to differ from those of *Æ. tiphia.*

## Genus **MYZORNIS**, Hodgs., 1843.

The genus *Myzornis* contains one species of brilliant green plumage, an inhabitant of the higher portions of the Himalayas.

In *Myzornis* the bill is slender and nearly as long as the head, distinctly notched, with the culmen gently curved; the nostrils are longitudinal and covered by a membrane; the rictal bristles weak. The head is not crested, but the feathers of the crown are somewhat lengthened. The wing is round; the tail is about two thirds the length of the wing and slightly rounded, and the tarsus is long and slender.

### 246. **Myzornis pyrrhura.** *The Fire-tailed Myzornis.*

Myzornis pyrrhoura, *Hodgs. J. A. S. B.* xii, p. 984 (1843); *Blyth, Cat.* p. 101; *Horsf. & M. Cat.* i, p. 263; *Jerd. B. I.* ii, p. 263; *Blanf. J. A. S. B.* xli, pt. ii, p. 44.

Myzornis pyrrhura, *Hodgs., Hume, Cat.* no. 629; *Sharpe, Cat. B. M.* vii, p. 635; *Oates in Hume's N. & E.* 2nd ed. i, p. 155.

*The Fire-tailed Flower-pecker*, Jerd.; *Lho-sagvit-pho,* Lepch.

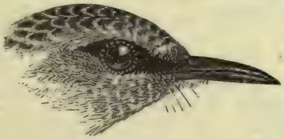

Fig. 70.—Head of *M. pyrrhura.*

*Coloration. Male.* The whole head and body, the wing-coverts, and the tertiaries bright green; the feathers of the forehead and crown with deep black centres; the lores and a triangular patch behind the eye black; a streak above and one below the eye brighter green; the throat and upper breast suffused with red; the middle of the lower part of the breast and abdomen tinged with red; vent and under tail-coverts chestnut-red; winglet tipped white; primary-coverts black, edged with green and tipped with yellow; primaries brown, the first eight tipped with white, the outer webs of all ten primaries deep black, more or less margined with red; secondaries with the outer webs red and tipped with pinkish white; tertiaries black, with some green on the inner webs; tail-feathers red on the outer webs, green on the inner, all broadly tipped with dusky.

*Female.* Resembles the male closely, but differs in having the red on the lower parts dull and subdued, and the red on the wings and tail less bright, the primary-coverts green, tipped with white, and the terminal spots on the secondaries pure white.

Bill dusky brown; legs fleshy; iris brown (*Jerdon*); the iris is figured red by Hodgson.

Length 5·2; tail 1·9; wing 2·4; tarsus ·9; bill from gape ·7.

*Distribution.* Nepal and Sikhim, probably not below 6000 feet.

*Habits, &c.* Haunts brushwood and moss-grown trees. The egg is said to be white, but this statement is not well authenticated.

## Genus **CHLOROPSIS**, Jard. & Selby, 1826.

The genus *Chloropsis* contains a large number of birds of bright green plumage which are found in Southern and South-eastern Asia. Seven species occur within Indian limits.

*Chloropsis* is always placed among the Bulbuls, but, with the exception of the very short tarsi, there is nothing in common between the two to point to any close relationship.

In this genus the bill is slender and curved, and about as long as the head; the tip is notched, and the nostrils are oval; the rictal bristles are weak; the frontal feathers are advanced up to the nostrils; the head is not crested; the wing is rounded, and the tail is short and square; the tarsi are very short, shorter than the middle toe with claw.

*Key to the Species.*

| | |
|---|---|
| *a*. Forehead rich orange-yellow. | |
| *a*′. Chin and throat bright blue | *C. aurifrons*, p. 234. |
| *b*′. Chin and throat black | *C. malabarica*, p. 235. |
| *b*. Forehead greenish or yellowish. | |
| *c*′. Abdomen orange-brown | *C. hardwickii*, p. 236. |
| *d*′. Abdomen green. | |
| *a*″. Outer webs of primaries blue | *C. chlorocephala*, p. 237. |
| *b*″. Outer webs of primaries green. | |
| *a*‴. A bright patch of colour on the wing-coverts. | |
| $a^4$. Moustachial streak a mere short narrow line | *C. zosterops*, p. 238. |
| $b^4$. Moustachial streak broad, and occupying the whole cheek | *C. jerdoni*, p. 238. |
| *b*‴. No bright patch of colour on wing-coverts | *C. cyanopogon*, p. 239. |

### 247. **Chloropsis aurifrons.** *The Gold-fronted Chloropsis.*

Phyllornis aurifrons, *Temm. Pl. Col.* 484, fig. 1 (1829); *Blyth, Cat.* p. 212; *Horsf. & M. Cat.* i, p. 258; *Jerd. B. I.* ii, p. 99; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; *Hume, S. F.* iii, p. 129; *Anders. Yunnan Exped., Aves,* p. 660; *Hume & Dav. S. F.* vi, p. 326; *Hume, Cat.* no. 465; *id. S. F.* xi, p. 184.

Phyllornis hodgsoni, *Gould, Birds Asia,* iii. pl. 15 (1861); *Bl. & Wald. Birds Burm.* p. 137.

Chloropsis aurifrons (*Temm.*), *Sharpe, Cat. B. M.* vi, p. 20; *Oates, B. B.* i, p. 205; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 595.

*The Gold-fronted Green Bulbul,* Jerd.; *Subz-harewa,* Nepal.; *Hurriba,* Beng.; *Skalem-pho,* Lepch.

*Coloration. Male.* The forehead and front of crown orange-yellow; lores, round eye, ear-coverts, and lower throat black; chin, cheeks, and upper throat purplish blue; a faint supercilium continued down the sides of the neck, then widening and passing round the black of the throat, so as to form a collar, yellow; lesser wing-coverts and bend of the wing verdigris-blue; the whole remaining visible portions of the plumage bright green, the concealed portions of the primaries and secondaries in the closed wing dark brown.

*Female.* Differs from the male in being rather less brilliant in coloration.

The young are entirely green on the head; a small moustachial blue streak is present, and the edgings to the wings are bluish; the tail is also tinged with blue.

Bill black; mouth bluish grey; eyelids dark brown; feet plumbeous; iris brown; claws horn-colour. The female has the mouth livid brown.

Length 8; tail 2·8; wing 3·8; tarsus ·7; bill from gape 1.

*Distribution.* The sub-Himalayan tracts from Garhwal to Dibrugarh in Assam; a considerable portion of Eastern Bengal and the adjacent States, Ball quoting the following localities as places where it is found: Rajmehal hills, Midnapur, Manbhum, Lohardugga, Sirguja, Kálahandi, and Goomsur; the Khási hills; Manipur; the neighbourhood of Bhámo; Karennee; the whole of what recently constituted British Burma, down to Amherst and the Thoungyeen valley. Birds from Kumaun are very much larger than those from other parts, but otherwise this species is very constant in size and colour throughout its great range. It extends into Cambodia.

*Habits, &c.* This species and all that follow are very similar in habits. They frequent trees, and are regular leaf-hunters, feeding principally on insects. They mimic the calls of other birds, and, notwithstanding their brilliant plumage, they are difficult to detect in trees. They go in pairs or alone. The nest of *C. aurifrons* does not appear yet to have been discovered.

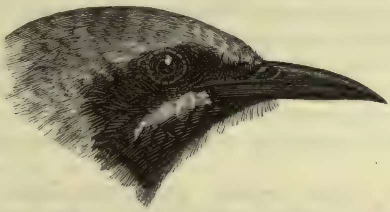

Fig. 71.—Head of *C. malabarica.*

### 248. **Chloropsis malabarica.** *The Malabar Chloropsis.*

Turdus malabaricus, *Gm. S. N.* i. p. 837 (1788).
Phyllornis malabaricus (*Gm.*), *Blyth, Cat.* p. 212; *Jerd. B. I.* ii, p. 98; *McMaster, J. A. S. B.* xl, pt. ii, p. 212; *Fairbank, S. F.* iv, p. 258; *Bourdillon, S. F.* iv, p. 400; *Legge, Birds Ceyl.* p. 488; *Hume, Cat.* no. 464; *Davison, S. F.* x, p. 387; *Barnes, Birds Bom.* p. 190.
Chloropsis malabarica (*Gm.*); *Sharpe, Cat. B. M.* vi, p. 22.

*The Malabar Green Bulbul,* Jerd.

*Coloration.* Forehead golden yellow; lores, under the eye, the lower part of the ear-coverts, the chin, and throat black; moustachial stripe blue; the lesser wing-coverts verdigris-blue; the remaining plumage and the visible portions of the closed wings and tail bright green.

The female hardly differs from the male.

The young are green all over.

Bill black; legs and feet plumbeous; claws dull black; iris dark brown (*Davison*).

Length about 8; tail 2·8; wing 3·6; tarsus ·7; bill from gape 1.

*Distribution.* The western coast of India from Khandála to Travancore; Ceylon; and McMaster records this species from Chikalda in Berar. It is found at all levels up to 6000 feet.

### 249. **Chloropsis hardwickii.** *The Orange-bellied Chloropsis.*

Chloropsis hardwickii, *Jard. & Selby, Ill. Orn.* ii, *Add.* p. 1 (1829); *Sharpe, Cat. B. M.* vi, p. 18; *Oates, B. B.* i, p. 206; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 594.

Phyllornis hardwickii (*J. & S.*), *Blyth, Cat.* p. 212; *Horsf. & M. Cat.* i, p. 258; *Jerd. B. I.* ii, p. 100; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; xlv, pt. ii, p. 79; *Blyth, Birds Burm.* p. 137; *Hume & Dav. S. F.* vi, p. 327; *Hume, Cat.* p. 466; *Scully, S. F.* viii, p. 297; *Hume, S. F.* xi, p. 185.

*The Blue-winged Green Bulbul,* Jerd.

*Coloration. Male.* The upper plumage green, washed with fulvous-yellow on the head; lores, the feathers under the eye, the ear-coverts, chin, throat, and upper breast black; a broad moustachial streak, reaching to the end of the ear-coverts, cobalt; remainder of the under plumage orange-brown, washed with green on the flanks; tail dull purple, the inner webs blacker; lesser wing-coverts verdigris-blue; remaining coverts and the primaries black, edged with purple; secondaries brown on the inner and green on the outer webs; tertiaries and inner greater coverts entirely green.

*Female.* The upper plumage green, the head being of the same colour as the other parts; lesser wing-coverts blue; the other coverts and the tertiaries wholly green; secondaries and primaries brown edged with green, the first three primaries with a tinge of blue; tail green; moustachial streak cobalt, but paler than in the male; sides of head and neck, chin, throat, and upper breast, with the whole of the flanks, green, tinged with blue on the throat; lower breast, abdomen, vent, and under tail-coverts orange-brown.

Young birds are entirely green, without any orange below at first; traces of orange on the abdomen soon make their appearance; the moustache and wing-patch are barely indicated.

Bill black; irides brown or dark brown; feet plumbeous; claws dusky or black (*Scully*).

Length 7·5; tail 3·1; wing 3·8; tarsus ·7; bill from gape ·95.

*C. lazulina,* from China, is barely separable from the present species; it has the chin, throat, and breast strongly suffused with blue.

*Distribution.* The Himalayas and their bases, from Mussooree to Dibrugarh in Assam; the Khási hills; Manipur; the Toungngoo hills; Karennee; the slopes of Muleyit mountain in Tenasserim. *C. hardwickii* is found at all levels, apparently up to 5000 or 6000 feet. It occurs on the mountains of Perak in the Malay peninsula.

### 250. **Chloropsis chlorocephala.** *The Burmese Chloropsis.*

Phyllornis cochinchinensis (*Lath.*), *apud Blyth, Cat.* p. 213; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 270; xliii, pt. ii, p. 180.
Phyllornis chlorocephalus, *Walden, A. M. N. H.* (4) vii, p. 241 (1871); *Blyth, Birds Burm.* p. 137; *Hume, S. F.* iii, p. 127; *Hume & Dav. S. F.* vi, p. 323; *Hume, Cat.* no. 463 bis; *Bingham, S. F.* ix, p. 183; *Oates, S. F.* x, p. 211; *Hume, S. F.* xi, p. 184.
Chloropsis chlorocephala (*Wald.*), *Sharpe, Cat. B. M.* vi, p. 28; *Oates, B. B.* i, p. 208; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 595.

*Coloration. Male.* Lores, feathers under and in front of the eye, cheeks, chin, and throat black; forehead and a broad band from eye to eye passing round and encircling the throat pale yellowish green; front of the crown above the forehead and a broad streak passing over the eyes and ear-coverts pale green; a very short moustachial streak cobalt; crown of the head and nape golden green; back, rump, upper tail-coverts, and scapulars deep green; tail blue; primaries and their coverts black, edged with blue; secondaries black on the inner and blue on the outer webs, and edged with green; tertiaries and inner greater coverts green tinged with blue; lesser coverts glistening smalt-blue; median and greater coverts green, tinged with blue at the base; under plumage bright green, tinged with yellow on the breast.

*Female.* The black on the head of the male is replaced by bluish green, and the broad yellow band encircling the black is absent; the coloration is duller everywhere, and the moustachial streak is pale bluish green.

The young are very like the adult female.

Bill black; iris brown; legs plumbeous; claws horn-colour.

Length 7; tail 2·7; wing 3·3; tarsus ·75; bill from gape ·9.

*C. icterocephala,* from the Malay peninsula, is very close to *C. chlorocephala,* but differs in having the forehead and the band encircling the throat pure yellow; the yellowish green on the front of the crown and over the eyes and ear-coverts is absent, and the whole summit of the head is a rich golden fulvous.

*Distribution.* The Gáro and Khási hills; Dimapur on the Dhansiri river in Assam; Cachar; Manipur; Arrakan; Pegu; Tenasserim; Karennee. The range extends to Cochin China.

### 251. **Chloropsis zosterops.** *The Malachite-shouldered Chloropsis.*

Chloropsis zosterops, *Vigors, App. Mem. Life Raffl.* p. 674 (1830); *Sharpe, Cat. B. M.* vi, p. 24; *Oates, B. B.* i, p. 207.
Phyllornis sonneratii (*Jard. & Selby*), *apud Blyth, Cat.* p. 213.
Phyllornis javensis (*Horsf.*), *apud Blyth, Birds Burm.* p. 136; *Hume & Dav. S. F.* vi, p. 324; *Hume, Cat.* no. 463 ter.

*Coloration. Male.* The whole upper plumage, wing-coverts, and tertiaries bright green; a patch on the lesser wing-coverts malachite-green; primaries and secondaries dark brown, broadly edged with bright green; tail green, the inner webs of all but the middle pair of feathers brown towards the outer edge; feathers above the nostrils, the lores, and a line produced narrowly over the eye, the cheeks, chin, and throat black; ear-coverts and a band along the black of the throat on either side a paler green than the upper plumage; a short narrow moustache cobalt; lower plumage bright green.

*Female.* No black on the head; the chin, throat, and a ring round the eye are bright yellow, and the moustachial streak is blue and indistinct.

Young birds resemble the female.

Legs, feet, and claws pale to dark plumbeous; bill black, base of lower mandible sometimes brown; irides varying—brown, dark wood-brown, lake or crimson; eyelids blackish grey (*Davison*).

Length 8·5; tail 3; wing 3·9; tarsus ·75; bill from gape 1·1.

The closely allied *C. viridis*, Horsf., from Java, may be distinguished by the colour of the shoulder-patch, which is turquoise-blue.

*Distribution.* Tenasserim, south of Ye near Moulmein; also in the Malay peninsula, Borneo, and Sumatra.

### 252. **Chloropsis jerdoni.** *Jerdon's Chloropsis.*

Phyllornis jerdoni, *Blyth, J. A S. B.* xiii, p. 392 (1844); *id. Cat.* p. 212; *Horsf. & M. Cat.* i, p. 259; *Jerd. B. I.* ii, p. 97; *Hume, N. & E.* p. 294; *Ball, S. F.* vii, p. 215; *Hume, Cat.* no. 463; *Legge, Birds Ceyl.* p. 485; *Reid, S. F.* x, p. 451; *Barnes, Birds Bom.* p. 189.
Chloropsis jerdoni (*Blyth*), *Sharpe, Cat. B. M.* vi, p. 25; *Oates in Hume's N. & E.* 2nd ed. i, p. 155.

*The Common Green Bulbul,* Jerd.; *Harrewa,* Hind.; *Wanna bojanum,* Tel.

*Coloration. Male.* A moustachial streak bright purplish blue; lores, chin, throat, and a line from the lores over the moustachial streak black; forehead and a broad band surrounding the black greenish yellow; lesser wing-coverts very bright malachite-green; the remainder of the plumage, with the visible portions of the closed wings and tail, green.

*Female.* The black of the male is replaced by pale bluish green, and the cheek-stripe is bright greenish blue.

The young resemble the female, but have no moustachial streak.

Iris brown; bill black; legs and feet pale blue (*Hume Coll.*).

Length 7·5; tail 2·9; wing 3·5; tarsus ·7; bill from gape ·9.

*Distribution.* The peninsula of India, from Sitapur, Fyzabad, and Basti on the north; Baroda and the Panch Máháls on the west; the Rajmehal hills and Midnapur on the east down to Cape Comorin and Ceylon.

*Habits, &c.* Breeds from April to August, constructing a shallow cup-shaped nest of vegetable fibres and fine roots and stems of weeds at the extremity of one of the upper branches of a tree some 20 feet from the ground. The eggs, two in number, are whitish marked with black or dark shades of brown; they measure ·86 by ·6.

### 253. **Chloropsis cyanopogon.** *The Blue-whiskered Chloropsis.*

Phyllornis cyanopogon, *Temm. Pl. Col.* 512, fig. 1 (1829); *Blyth, Cat.* p. 213; *Horsf. & M. Cat.* i, p. 410; *Hume & Dav. S. F.* vi, p. 325; *Hume, Cat.* no. 463 quat.

Chloropsis cyanopogon (*Temm.*), *Sharpe, Cat. B. M.* vi, p. 32; *Oates, B. B.* i. p. 209.

*Coloration. Male.* The upper plumage, wing-coverts, and sides of the neck bright green; the forehead tinged with yellow; wings dark brown, broadly edged with bright green; tail green, edged with brown on the inner webs; lores, cheeks, chin, and throat black; a line over the lores and eye brighter green than the other parts; a short moustachial streak cobalt; a line bordering the black throat green tinged with yellow; lower plumage light green.

*Female.* No black on the chin and throat, the moustachial streak duller blue, and the feathers round the eye conspicuously lighter than the crown.

The young resemble the female, but the moustachial streaks are absent or barely indicated.

Legs and feet dark plumbeous; bill black; iris dark brown (*Davison*).

Length 7; tail 2·6; wing 3·3; tarsus ·7; bill from gape ·8.

*Distribution.* This species has occurred at the extreme southern point of Tenasserim. It is found in the Malay peninsula, Sumatra, and Borneo.

## Genus **IRENA**, Horsf., 1821.

The genus *Irena* contains some of the most beautiful birds known, of which one species only is found within our limits.

The position of *Irena* appears to be in this subfamily, its relationship with the Bulbuls, with which it is generally placed, being doubtful. Its affinities for some of the genera of this subfamily, such as *Cutia*, appear to me to be strong.

In *Irena* the bill is shorter than the head, stout, curved, with the tip notched; the nostrils are oval, partially concealed by the frontal plumes; the rictal bristles are well developed. Some hairs spring from the nape, somewhat as in the Bulbuls. The head is not crested. The wing is rather pointed, and the tail-coverts are extremely long. The tarsus is short.

### 254. **Irena puella.** *The Fairy Blue-bird.*

Coracias puella, *Lath. Ind. Orn.* i, p. 171 (1790).
Irena puella (*Lath.*), *Blyth, Cat.* p. 214; *Horsf. & M. Cat.* i, p. 273; *Jerd. B. I.* ii, p. 105; *Stoliczka, J. A. S. B.* xxxix, pt. ii, p. 318; *Wald. Ibis,* 1871, p. 170; *Hume N. & E.* p. 298; *Hume, S. F.* ii, p. 226, iii, p. 130; *Hume & Dav. S. F.* vi, p. 328; *Hume, Cat.* no. 469; *Legge, Birds Ceyl.* p. 466; *Sharpe, Cat. B. M.* vi, p. 177; *Bingham, S. F.* ix, p. 184; *Oates, S. F.* x, p. 211; *id. B. B.* i, p. 209; *Barnes, Birds Bom.* p. 192; *Hume, S. F.* xi, p. 186; *Oates in Hume's N. & E.* 2nd ed. i, p. 157.

*Hnet-pya-sate*, Burm.

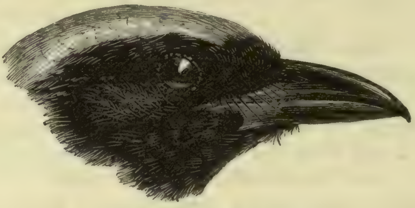

Fig. 72.—Head of *I. puella.*

*Coloration. Male.* The whole upper plumage, the lesser wing-coverts, and the under tail-coverts shining ultramarine-blue with lilac reflexions; sides of the head and the whole lower plumage deep black; greater wing-coverts, quills, and tail black, some of the coverts tipped with blue, and the middle tail-feathers glossed with blue.

*Female.* The whole upper plumage, the lesser wing-coverts, and the lower tail-coverts brownish blue, with the edges of the feathers brighter; middle tail-feathers and the outer webs of all the others, except the outer pair, like the upper plumage; remainder of tail dark brown; primaries and secondaries dark brown; the greater wing-coverts, primary-coverts, and tertiaries dark brown, with a blue tinge on the outer webs; sides of the head and whole lower plumage blue, very similar to the upper parts.

The young are like the female. The male changes into adult plumage about March, and the change takes place without a moult; the feathers of the upper parts first become fringed with bright blue; the tail-coverts next become changed; the lower plumage takes the longest to change, and young birds may frequently be met with having the lower plumage mixed black and dull blue, but the upper plumage that of the adult.

Iris crimson; eyelids pinkish; bill and legs black; mouth flesh-colour; claws black.

Length 10·5; tail 4·2; wing 5·1; tarsus ·85; bill from gape 1·2.

*I. cyanea*, from the Malay peninsula, differs in having the under tail-coverts longer, nearly reaching to the tip of the tail.

*Distribution.* Ceylon; the western coast of India from Travancore up to the latitude of Belgaum and Sawant Wari; Sikhim and the lower ranges of the Himalayas to Dibrugarh in Assam; the Khási hills; Cachar; Manipur; Arrakan; Pegu; Tenasserim; the Andamans and Nicobars. This species is confined entirely to the evergreen forests of the hills and plains, and it is found up to about 4000 feet of elevation. It extends some distance down the Malay peninsula and into Siam.

*Habits, &c.* This bird is common in most of the tracts it frequents, going about in small parties or in pairs. It feeds principally on fruit and is generally found on the larger forest-trees. It breeds from February to April, constructing a shallow cup-shaped nest, sometimes of moss and sometimes of small twigs, in a sapling or small tree. The eggs, which are generally two in number, are greenish white marked with brown, and measure about 1·14 by ·77.

## Genus **MELANOCHLORA**, Lesson, 1839.

In *Melanochlora* the sexes are of different colours, and the nostrils are not entirely concealed by stiff bristles, consequently this generic type appears to me to be removed from the *Parinæ* and to belong to the *Liotrichinæ*.

In this genus the bill is strong but short; the tip is entire, the nostrils round and partially concealed by the soft frontal plumes. The crest is very long and pointed. The wing is comparatively long and sharp. The tail is shorter than the wing, and the feathers are graduated. The tarsus is strong and equal in length to the middle toe with claw.

Only one species is known.

### 255. **Melanochlora sultanea.** *The Sultan-bird.*

Parus sultaneus, *Hodgs. Ind. Rev.* 1836, p. 31; *Horsf. & M. Cat.* i, p. 369; *Gadow, Cat. B. M.* viii, p. 6.

Parus flavocristatus, *Lafresn. Mag. Zool.* 1837, pl. 80; *Blyth, Cat.* p. 102.

Melanochlora sultanea (*Hodgs.*), *Jerd. B. I.* ii, p. 282; *Godw.-Aust.*

*J. A. S. B.* xxxix, pt. ii, p. 109; *Hume, S. F.* iii, p. 143; *Hume & Dav. S. F.* vi, p. 378; *Anders. Yunnan Exped., Aves,* p. 632; *Hume, Cat.* no. 650; *Scully, S. F.* viii, p. 324; *Bingham, S. F.* ix, p. 190: *Oates, S. F.* x, p. 228; *id. B. B.* i, p. 129; *Hume, S. F.* xi, p. 256.

*The Sultan Yellow-Tit,* Jerd.; *Bon tylia-pho,* Lepch.

*Coloration. Male.* The forehead and crown with the crest brilliant yellow; the whole upper plumage, sides of the head and neck, chin, throat, and breast deep black, the edges of the feathers of the upper plumage with a metallic lustre, and the outermost tail-feathers tipped with white; lower plumage from the breast downwards deep yellow, the thighs barred or mottled with white.

*Female.* The yellow parts duller; the upper plumage and sides of the head dark greenish brown; the chin and throat yellowish brown; wings and tail dull black; the feathers of the upper plumage edged with metallic green.

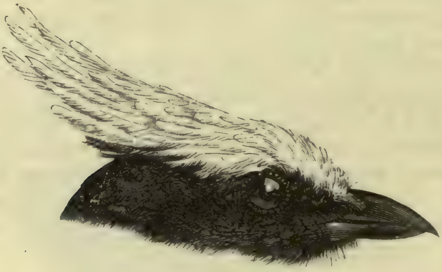

Fig. 73.—Head of *M. sultanea.*

The young resemble the female, but in the youngest stage the bright edges to the plumage of the upper parts are absent, and the greater wing-coverts are tipped with white.

Bill black; mouth dark fleshy; eyelids plumbeous; iris dark brown; legs plumbeous; claws dark horn.

Length about 8; tail 3·8; wing 4·4; tarsus ·95; bill from gape ·75.

*Distribution.* The lower ranges of the Himalayas from Nepal to the head of the Assam valley; the Khási hills; Cachar; Manipur; the Kakhyen hills east of Bhamo; Arrakan; the Pegu hills; Karennee; Tenasserim. This species does not appear to be found above 4000 feet of elevation. It extends down the Malay peninsula.

*Habits, &c.* Frequents the larger trees in small flocks.

## Genus **HILAROCICHLA**, n. gen.

I propose to separate the following species from the members of the genus *Pteruthius* on account of its much longer tail, which is quite equal in length to the wing, and the greater graduation of the tail-feathers, the outer falling short of the middle feathers by a third of the total length of the tail. In all other respects *Hilarocichla* agrees with *Pteruthius*.

### 256. **Hilarocichla rufiventris.** *The Rufous-bellied Shrike-Tit.*

Pteruthius rufiventer, *Blyth, J. A. S. B.* xi, p. 183 (1842), xii, p. 954; *id. Cat.* p. 98; *Horsf. & M. Cat.* i, p. 173; *Jerd. B. I.* ii, p. 245; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 199; *Hume, Cat.* no. 610; *id. S. F.* xi, p. 244.

Ptererythrius rufiventer, *Bl., Gadow, Cat. B. M.* viii, p. 115.

*Coloration. Male.* The forehead, crown, nape, hind neck, and sides of the head black; upper plumage chestnut; tail black tipped with chestnut; wings black, the secondaries tipped chestnut, a few of the primaries margined with grey below the emarginations; chin, throat, and upper breast ashy, divided from the black of the head by a white line; a patch of golden yellow on each side of the breast; remainder of lower plumage soft vinous brown, paler on the abdomen and under tail-coverts; under wing-coverts pale vinous; edge of wing white.

*Female.* Forehead grey tipped with black; crown and nape black; sides of head grey, with a black patch at the end of the ear-coverts; back, scapulars, and upper part of rump bright green, irregularly barred with black; lower rump and upper tail-coverts chestnut; central tail-feathers green with black shafts, black subterminal bar, and white tips; the others black, with a portion of the outer webs green and all tipped with chestnut; smaller wing-coverts black, broadly tipped green; greater wing-coverts black on the inner and green on the outer webs; winglet and primary-coverts black; quills black, the earlier primaries edged with hoary grey, all the other quills with green, the tertiaries having the entire outer webs green; chin, throat, and breast grey; lower plumage dark vinous brown, with a yellowish patch on each side the breast.

The young resemble the female, and the male acquires the adult plumage in the November of the first year.

In the dry state the bill is black, bluish on the lower mandible; legs fleshy brown.

Length about 8; tail 3·3; wing 3·4; tarsus 1·2; bill from gape ·9.

*Distribution.* Nepal; Sikhim; the Nága hills. This is probably a bird of high elevations, but nothing whatever is on record about its habits.

## Genus **MESIA**, Hodgs., 1838.

The genus *Mesia* contains two species, one of which is found within our limits. The coloration of the birds of this genus is very pretty.

In *Mesia* the bill is stout, about half the length of the head, slightly notched near the tip, and with the culmen curved; the nostrils are covered by a peculiarly shaped membrane, and the rictal bristles are strong. The head is subcrested; the wing rounded; the tail very slightly graduated, and the foot strong.

### 257. **Mesia argentauris.** *The Silver-eared Mesia.*

Mesia argentauris, *Hodgs. Ind. Rev.* 1838, p. 88; *Hume, N. & E.* p. 392; *id. Cat.* no. 615; *Scully, S. F.* viii, p. 318; *Sharpe, Cat. B. M.* vii, p. 642; *Oates, B. B.* i, p. 143; *Hume, S. F.* xi, p. 247; *Oates in Hume's N. & E.* 2nd ed. i, p. 160.

Leiothrix argentauris (*Hodgs.*), *Blyth, Cat.* p. 99; *Horsf. & M. Cat.* i, p. 365; *Jerd. B. I.* ii, p. 251; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 109; xlv, pt. ii, p. 81; *Bl. Birds Burm.* p. 109; *Wardlaw Ramsay, Ibis,* 1877, p. 464; *Anders. Yunnan Exped., Aves,* p. 630; *Hume & Dav. S. F.* vi, p. 370.

*The Silver-eared Hill-Tit,* Jerd.; *Dang-rapchil-pho,* Lepch.

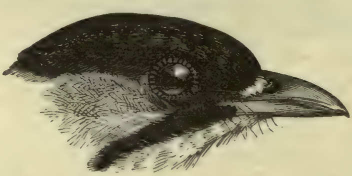

Fig. 74.—Head of *M. argentauris.*

*Coloration. Male.* Forehead golden yellow; crown, nape, lores, cheeks, produced as a stripe under the ear-coverts, black; ear-coverts silvery white; upper back and sides of the neck fulvous yellow; lower back, scapulars, tertiaries, and wing-coverts slaty, some of the outermost of the latter edged with green; rump slaty green; upper tail-coverts crimson; tail blackish brown, the three outer pairs of feathers edged with yellowish; wings brown, the first two primaries edged with yellow, the other quills with crimson at the base and yellow elsewhere; chin and throat deep orange-yellow; lower plumage olive-yellow, brighter on the breast and abdomen, the former of which is obsoletely streaked darker; under tail-coverts crimson.

*Female.* Differs in having both the upper and the lower tail-coverts orange-buff.

The young have the crown yellowish at first.

Bill ochre-yellow, slightly greenish at the base; iris dark or reddish brown; feet yellow-fleshy; claws buff-horny (*Scully*).

Length about 7; tail 2·8; wing 3; tarsus 1; bill from gape ·75.

*Distribution.* The Himalayas from Garhwal to the Daphla hills in Assam; the Khási and Nága hills; Manipur; the Kakhyen hills east of Bhámo; the Karen hills east of Toungngoo; Karennee; the slopes of Muleyit mountain in Tenasserim. The range of this bird extends to the mountains of Perak.

*Habits, &c.* This species is found from 3000 to about 7000 feet of elevation. It breeds from March to June, constructing a cup-shaped nest of moss or of grass, with creeper-stems intermingled, in shrubs and small trees. The eggs resemble those of *Liothrix lutea* very closely, and measure ·86 by ·62.

## Genus **MINLA**, Hodgs., 1838.

The genus *Minla*, as I restrict it, contains one Indian bird of pleasing plumage, found on the Himalayas and on some of the hill-ranges of Assam.

In *Minla* the bill is very similar in shape to that of *Cutia*, but very much smaller. The head is subcrested, the wing rounded, and the tail, which is as long as the wing, slightly graduated.

### 258. **Minla igneitincta.** *The Red-tailed Minla.*

Minla ignotincta, *Hodgs. Ind. Rev.* 1838, p. 33; *Jerd. B. I.* ii, p. 254; *Blanf. J. A. S. B.* xli, pt. ii, p. 45; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 169; *Hume, N. & E.* p. 393; *id. Cat.* no. 618; *Scully, S. F.* viii, p. 319; *Sharpe, Cat. B. M.* vii, p. 606; *Oates in Hume's N. & E.* 2nd ed. i, p. 161.

Leiothrix ignitincta (*Hodgs.*), *Blyth, Cat.* p. 99; *Horsf. & M. Cat.* i, p. 366.

*The Red-tailed Hill-Tit*, Jerd.; *Minla*, Nepal; *Megblim ayene*, Lepch.

*Coloration. Male.* The forehead, crown, nape, and the middle of the upper back black; a very broad and distinct supercilium from the forehead to the end of the black point on the back, blending more or less with the supercilium on the other side of the crown, white; lores, ear-coverts, and a band extending nearly to the end of the white supercilium, black; back, rump, and scapulars deep vinaceous; upper tail-coverts black; tail black, tipped and edged on the outer webs with crimson, the two middle feathers with a white streak at the base of the inner webs, the outer feathers suffused with red on the inner webs; wing-coverts and tertiaries black, edged with white, the latter also broadly tipped white; primaries and secondaries black, edged with crimson on the greater part of the outer webs, the earlier primaries margined with white near the tips, the later secondaries tipped with white; chin yellowish white; entire lower plumage yellow, sparingly and narrowly streaked with brown.

*Female.* Differs from the male in having the back, rump, scapulars, and upper tail-coverts uniform vinaceous brown; the crimson on the wing is replaced by pinkish white and on the tail by pale red.

The young bird of both sexes is probably like the female till the first autumn moult.

Legs and feet grey-brown to greenish leaden, with a wax-yellow tinge on toes (sometimes extending to the tarsi), more decided in males than in females; soles wax-yellow; upper mandible and tip of lower blackish brown; rest of lower mandible horny-grey or bluish-greenish horny; iris greyish or brownish white (*Hume*).

Length about 5·5; tail 2·2; wing 2·5; tarsus ·85; bill from gape ·6.

*Distribution.* Nepal; Sikhim; Bhutan; the Nága hills; Manipur. Found up to about 9000 feet.

*Habits, &c.* Breeds, according to Hodgson, in Nepal in May and June, constructing a cup-shaped nest of moss in a bushy tree. The eggs are said to be blue, speckled with brownish red.

## Genus **LEPTOPŒCILE**, Severtzow, 1873.

The genus *Leptopœcile* contains one lovely species, which is an inhabitant of Turkestan and has lately been added to the Indian list.

In *Leptopœcile* the plumage is very soft and copious. The bill is very slender, straight, sharp-pointed, and entire. The nostrils are covered by a membrane and by some frontal hairs; the rictal bristles are strong. The head is subcrested, the wings rounded, the tail well-graduated, and the tarsi long. This genus has, in my opinion, no connexion with the *Parinæ* and its position seems to be in the *Liotrichinæ*.

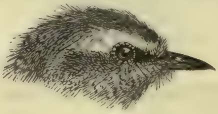

Fig. 75.—Head of *L. sophiæ*.

### 259. **Leptopœcile sophiæ.** *Stoliczka's Warbler-Tit.*

Leptopœcile sophiæ, *Severtz. Turk. Jevotn.* pp. 66, 135, pl. viii, figs. 8, 9 (1873); *Scully, S. F.* iv, p. 153; *Biddulph, Ibis*, 1881, p. 37; 1882, p. 280; *Scully, Ibis*, 1881, p. 567; *Gadow, Cat. B. M.* viii, p. 86.
Stoliczkana stoliczkæ, *Hume, S. F.* ii, p. 513 (1874).

*Coloration. Male.* Forehead and a broad supercilium dull yellowish white; lores dark brown; crown chestnut, the tips of the feathers more or less suffused with cobalt-blue; sides of the head and neck and the whole lower plumage rich lilac, overlaid with cobalt-blue; the centre of the abdomen light buff; back and wing-coverts dull bluish grey; wings brown, the quills edged with the colour of the back; rump brilliant cobalt-blue; upper tail-coverts dull blue; tail dark brown suffused with bluish, and the three outer pairs of tail-feathers margined with white.

*Female.* The upper plumage, wings, and tail similar to the male, but the rump paler; lower plumage dull vinaceous, with the sides of the body washed with lilac and blue.

The young bird appears to be unknown, but it probably resembles the female.

Iris bright red; bill black; legs and feet horny blackish-brown (*Stoliczka*).

Length 4·5; tail 2·2; wing 2; tarsus ·7; bill from gape ·37.

*Distribution.* Gilgit; Leh; Nobra valley, Ladák. This species is found throughout Turkestan. It appears to occur at elevations ranging from 5000 to 13,000 feet, according to season, and to be a permanent resident in Kashmir.

*Habits, &c.* This bird seems to have the ordinary habits of the Tits.

## Genus **CEPHALOPYRUS**, Bonap., 1854.

The genus *Cephalopyrus* is very closely allied to the last and it is not necessary to figure the head.

The only Indian species of this genus is a partial migrant, visiting the plains in the winter and returning to the hills in the spring. Its wing is adapted for migration, being very pointed with the first primary minute. The tail is short and square.

It appears probable that this bird has a partial spring moult, confined to the feathers of the head, but the specimens at my disposal are not quite sufficient to prove the fact.

### 260. **Cephalopyrus flammiceps.** *The Fire-cap.*

Ægithalus flammiceps, *Burton, P. Z. S.* 1835, p. 153; *Blyth, Cat.* p. 105; *Gadow, Cat. B. M.* viii, p. 69.

Dicæum sanguinifrons, *A. Hay, J. A. S. B.* xv, p. 44 (1846).

Cephalopyrus flammiceps (*Burton*), *Jerd. B. I.* ii, p. 267; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 52; *Cock & Marshall, S. F.* i, p. 356; *Hume, N. & E.* p. 401; *Ball, S. F.* vii, p. 220; *Hume, Cat.* no. 633; *Biddulph, Ibis,* 1881, p. 71; 1882, p. 280; *Oates in Hume's N. & E.* 2nd ed. i, p. 161.

*The Flame-fronted Flower-pecker,* Jerd.

*Coloration. Male.* The lores, forehead, and the anterior half of the crown flaming orange-red; the remainder of the upper plumage olive-yellow, brighter on the rump; the upper tail-coverts with dark shafts; wing-coverts, wings, and tail dark brown, edged with dull yellowish; sides of the head, throat, and breast golden yellow, the chin suffused with bright red; remainder of the lower plumage dull yellow.

*Female.* Resembles the male, but has no red whatever on the head and chin, and the yellow parts are duller and tinged with green.

The young resemble the female, and the males assume the adult plumage in the spring of their first year.

Bill plumbeous; legs leaden-brown (*Jerdon*); iris dark brown (*Hume Coll.*).

Length about 4; tail 1·3; wing 2·4; tarsus ·5; bill from gape 35.

*Distribution.* The whole of the Himalayas from Gilgit and Murree to Bhutan, where this species is found from 3000 to 9000 feet. In the winter it descends to the plains, and I have examined specimens obtained at that season at Cawnpore, Etawah, Aligarh, Raipur, Nágpur, and Saugor. It extends into Afghanistan.

*Habits, &c.* Breeds at Murree in April and May, constructing its nest, which is made of fine grass, in a hole in a tree or stump at no great height from the ground. The eggs are not known.

## Genus **PSAROGLOSSA**, Hodgs., 1844.

The genus *Psaroglossa* contains one bird which has been universally considered a Starling, but in my opinion erroneously so. Neither its structure, its habits, nor the colour of its eggs show any affinities with the *Sturnidæ*.

In *Psaroglossa* the sexes are differently coloured and the rictal bristles are well developed. In the Starlings the sexes are always alike and the rictal bristles are absolutely wanting. I think therefore that it is preferable to disassociate this genus from the Starlings and place it in the present family. The young, moreover, appear to resemble the adult female very closely, and not to be streaked as is the case with the majority of the Starlings.

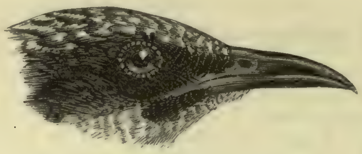

Fig. 76.—Head of *P. spiloptera.*

In *Psaroglossa* the bill is slender and curved and the nostrils small and circular; the rictal bristles are strong. The feathers of the crown are short and pointed. The wing is long and pointed and the first primary is minute. The tail is short and square.

### 261. **Psaroglossa spiloptera.** *The Spotted-wing.*

Lamprotornis spilopterus, *Vigors, P. Z. S.* 1831, p. 35; *Gould, Cent.* pl. 34.

Saroglossa spiloptera (*Vig.*), *Horsf. & M. Cat.* ii, p. 545; *Jerd. B. I.* ii, p. 336; *Hume, N. & E.* p. 434; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 170; *Wald. in Blyth's Birds Burm.* p. 91; *Brooks, S. F.* iii, p. 254; *Armstrong, S. F.* iv, p. 334; *Hume & Dav. S. F.* vi, p. 394; *Wardlaw Ramsay, Ibis*, 1877, p. 461; *Hume, Cat.* no. 691; *id. S. F.* ix, p. 256, xi, p. 268; *Oates, B. B.* i, p. 394.

Psaroglossa spiloptera (*Vig.*), *Blyth, Cat.* p. 109; *Sharpe, Cat. B. M.* xiii, p. 117; *Oates in Hume's N. & E.* 2nd ed. i, p. 161.

*The Spotted-wing Stare*, Jerd.; *Puli* at Mussoorie.

*Coloration. Male.* The upper plumage from the forehead to the upper back grey, each feather edged with black; back and scapulars grey, each feather edged with brown; rump plain brown; upper tail-coverts rufous-brown; tail brown tinged with rufous; lores, cheeks, and ear-coverts black; chin and throat deep chestnut-maroon; the whole lower plumage rufous, paler and whiter on the middle of the abdomen, and all the feathers narrowly edged with whitish; primaries, secondaries, and primary-coverts black edged with metallic blue, and all the primaries with a white patch at their bases; wing-coverts dark brown edged with grey; tertiaries light brown; under wing-coverts and axillaries white.

*Female.* The whole upper plumage brown with greyish centres to the feathers, most conspicuous on the head and back and nearly obsolete on the rump and upper tail-coverts; lesser and median wing-coverts brown, with a subterminal grey band; greater coverts brown, broadly edged with grey; primaries and secondaries blackish with glossy margins, the bases of the former whitish; tertiaries like the back; tail dark brown; sides of the head uniform dark brown; lower plumage brown, with broad whitish margins to the feathers and the whole suffused with a pale tinge of fulvous; lower part of abdomen and the under tail-coverts nearly pure white.

The young appear to resemble the female.

Irides dull white; bill dusky black, reddish black at base of lower mandible; upper and lower mandibles margined with pale yellow; legs, feet, and claws black (*Armstrong*).

Length 7·5; tail 2·5; wing 4·2; tarsus ·85; bill from gape 1.

*Distribution.* The Himalayas from Dharmsála to the head of the Assam valley and also, but more rarely, the plains of Upper India; the Khási and Gáro hills; Cachar; Manipur; the Karen hills east of Toungngoo; the southern part of Pegu near the Rangoon river; doubtfully Tenasserim.

This bird appears to be found up to 6000 feet. It also, as before noted, occurs in the plains, Mr. A. Anderson having killed one at Fatehgarh on the 2nd June.

*Habits, &c.* Captain Hutton remarks that the flight of *P. spiloptera* is similar to that of a Starling. It delights to take a short and rapid flight and return twittering to perch on the summit of the forest trees. He never observed it on the ground, and its food appears to consist of berries.

This species breeds in the holes of trees, laying its eggs on a few bits of leaves. The eggs are pale greenish speckled with red and purple, and they measure about 1·05 by ·71.

## Genus **HYPOCOLIUS**, Bonap., 1850.

The position of the present genus is somewhat uncertain owing to want of information regarding the plumage of the nestling. Mr. W. D. Cumming, who brought up some young birds at Fao from the nest, unfortunately omits to state whether they resemble the adults or not, and I have been unable to examine any but apparently adult birds myself. These, however, are all in the same plumage, sex for sex, and therefore it seems probable that the young are neither spotted, streaked, nor barred, otherwise some traces of these marks would be retained by some of the birds I have examined.

Sharpe speaks of the summer and winter plumage of this bird, but I have not been able to discover that the plumage varies according to season.

*Hypocolius* is said to be migratory, but I think this statement requires confirmation. It is true that it makes its appearance on the shores of the Persian Gulf about the 10th of April, but it must be remembered that Blanford procured the bird in Sind on the 6th March. It probably moves about the country without being actually a migrant in the ordinary sense of the term.

In *Hypocolius* the bill is stout and broad at the base and about half the length of the head; the nostrils are small exposed ovals; the rictal bristles are weak, but always clearly visible. The wing is short but pointed, the first primary being minute and the second reaching to the tip of the wing. The tail is long and slightly graduated. The tarsus is very short and stout, coarsely scutellated, and shorter than the middle toe and claw.

### 262. **Hypocolius ampelinus.** *The Grey Hypocolius.*

Hypocolius ampelinus, *Bonap. Consp. Av.* i, p. 336 (1850); *Heugl. Ibis*, 1868, p. 181, pl. v; *Blanf. Ibis*, 1875, p. 388; *Sclater, P. Z. S.* 1875, p. 633; *Blanf. S. F.* iii, p. 358; *Hume, S. F.* iii, p. 416, v, p. 349; *Sharpe, Cat.B. M.* iii, p. 316; *Hume, Cat.* no. 269 quat.; *Barnes, Birds Bom.* p. 149; *Sharpe, Ibis*, 1886, pp. 477, 494; *Oates in Hume's N. & E.* 2nd ed. i, p. 162 note.

Ceblepyris isabellina, *Heugl. Syst. Uebers., Sitzungsb. k.-k. Acad. Wien*, xix, p. 284 (1856).

*Coloration. Male.* The feathers immediately near the nostrils, the lores, ear-coverts, the feathers above and below the eye, and a band carried round the nape black; forehead, crown, cheeks, chin, throat, the middle of the abdomen, vent, thighs, and under tail-coverts pinkish cream-colour; remainder of the body-plumage, wing-coverts, and tertiaries drab-grey; winglet and primary-coverts blackish shaded with ashy, and partially margined with grey; primaries black, with broad white tips shaded with grey on the first two or three; secondaries black, broadly edged and tipped with ashy, the black diminishing in amount on the later quills, and occupying only a portion of the inner web; tail drab-grey, broadly tipped with black.

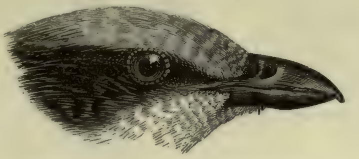

Fig. 77.—Head of *H. ampelinus.*

*Female.* The upper plumage and the whole wing greyish isabelline, the quills shaded with brown interiorly, and edged and tipped with light grey; the tail is merely brown towards the end and tipped paler; the lower plumage pinkish cream-colour, suffused with drab-grey across the breast. There is no black whatever on the head.

The bill of a male killed in April is black; in one killed in June the basal half is horn-colour, and the terminal half black; legs yellow. The female has the bill dark brown.

Length about 9·5; tail 4·6; wing 4; tarsus ·9; bill from gape ·9.

*Distribution.* A specimen was killed in March by Blanford's collector amongst the lower hills on the eastern flanks of the great Khirthar range dividing Sind from Khelat. Another specimen was procured at Nal in Khelat. This appears to be a common bird on the shores of the Persian Gulf, especially at Fao and Bushire, where it is recorded as arriving about the 10th April. It also occurs in Persia, and it was first discovered in North-east Africa.

*Habits, &c.* This bird is found about the date-gardens of Fao and other places in the Persian Gulf, but Blanford procured it on the bare hill-sides of a stony range of hills. At Fao it breeds in June and July, constructing a cup-shaped nest lined with grass, wool, or hair, on a leaf of a date-palm at no great height from the ground. The eggs, four in number, are dull white, spotted with grey, and measure about ·86 by ·63.

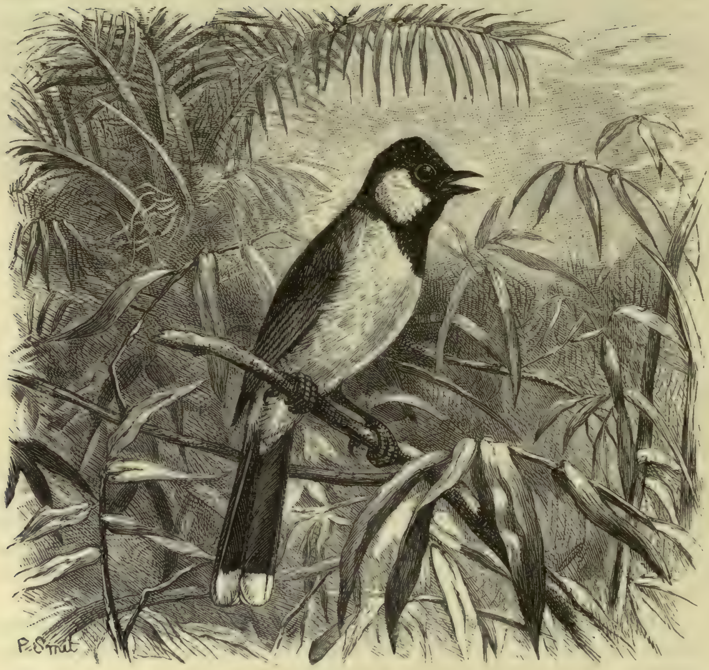

Fig. 78.—*Molpastes leucotis.*

## Subfamily BRACHYPODINÆ.

The *Brachypodinæ* or Bulbuls form a numerous and fairly well-defined group of birds, which attain their greatest development in Southern Asia. They are also, however, well represented in Africa.

In the Bulbuls the sexes are invariably alike in colour, and the young closely resemble the adult, the brighter colours being replaced for the first few weeks by paler tints of the same. All species are non-migratory. The eggs of all about the nidification of which anything is known are marked with various shades of red and purple.

The main feature of the Bulbuls is their short tarsus, which is never longer than the middle toe and claw together. This character is possessed by other birds in a few instances, but the Bulbuls may be further recognized by the presence of some hairs springing from the nape. These hairs are frequently very long, sometimes short and inconspicuous, but never, I think, entirely absent.

Many of the Bulbuls are familiar birds, frequenting gardens, and having pretty notes.

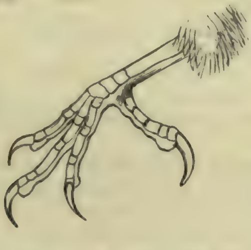

Fig. 79.—Foot of *Hypsipetes concolor*.

*Key to the Genera.*

- *a*. Hairs springing from hind neck numerous and as long as tarsus or longer.
  - $a'$. Crest long and pointed ................ CRINIGER, p. 254.
  - $b'$. Crest absent or obsolete.
    - $a''$. Long hairs springing from the back .. TRICHOLESTES, p. 257.
    - $b''$. No hairs springing from the back .... ALOPHOIXUS, p. 259.
- *b*. Hairs springing from hind neck few and short, or obsolete.
  - $c'$. Feathers at sides of crown and over ear-coverts similar in shape to those on crown.
    - $c''$. A distinct crest.
      - $a'''$. Nostrils not covered by plumelets.
        - $a^4$. Wing pointed; secondaries falling short of tip of wing by length of tarsus or more.
          - $a^5$. Tail forked; the outer feathers curved outwards ............ HYPSIPETES, p. 259.
          - $b^5$. Tail square or rounded; the outer feathers straight.
            - $a^6$. Longest crest-feathers shorter than tarsus and pointed .... HEMIXUS, p. 263.
            - $b^6$. Longest crest-feathers longer than tarsus and blunt...... ALCURUS, p. 266.
        - $b^4$. Wing blunt; the secondaries falling short of tip of wing by much less than length of tarsus.
          - $c^5$. Crest thick, springing from every portion of crown and nape.
            - $c^6$. Tail very slightly rounded; the outer feather falling short of tip of tail by a shorter distance than length of hind toe..................... MOLPASTES, p. 267.

$d^6$. Tail generally rounded; the outer feather falling short of tip of tail by about length of tarsus ................ XANTHIXUS, p. 274.
$d^5$. Crest confined to middle of crown only; feathers of nape quite short.
  $e^6$. Shafts of the feathers of the back soft ................ OTOCOMPSA, p. 275.
  $f^6$. Shafts of the feathers of the back rigid and spinous . . . PINAROCICHLA, p. 279.
$b'''$. Nostrils nearly concealed by plumelets ........................ SPIZIXUS, p. 280.
$d'$. Crest inconspicuous or absent.
  $c''$. Upper tail-coverts not reaching to the middle of the tail.
    $c^4$. Feathers of the forehead and crown very short and stiff ............ TRACHYCOMUS, p. 281.
    $d^4$. Feathers of the forehead and crown slightly lengthened and soft.
      $e^5$. Bill larger, about three quarters length of head; culmen laterally compressed and sharply carinated ...................... IOLE, p. 282.
      $f^5$. Bill smaller, about half length of head; culmen not much compressed nor sharply carinated . PYCNONOTUS, p. 285.
  $d''$. Upper tail-coverts reaching nearly to tip of tail .................... MICROPUS, p. 294.
$d'$. Feathers at sides of crown and over ear-coverts long and pointed, contrasting with the rounded feathers of the crown . KELAARTIA, p. 296.

## Genus **CRINIGER**, Temm., 1820.

The genus *Criniger* may be known from all the other Bulbuls by the presence of a long pointed crest and numerous very long hairs springing from the nape or hind neck. The tail of all the Indian species is, moreover, rufous, a character shared but by few other Bulbuls.

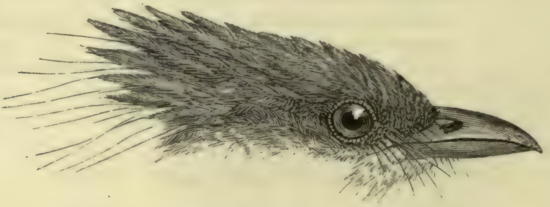

Fig. 80.—Head of *C. flaveolus*.

In *Criniger* the bill is strong, and about half the length of the head; the rictal bristles are well-developed, and the culmen is evenly curved throughout. The wing is blunt; the tail distinctly rounded, and the tarsus strong but short. The plumage is very soft.

The birds of this genus are sociable, being generally found together in companies of six to a dozen. They are eminently forest-birds, frequenting trees, and not approaching gardens or clearings. They are remarkably noisy, their notes being very harsh and frequently uttered. Their food consists of fruit and berries, varied with insects.

### *Key to the Species.*

| | |
|---|---|
| *a.* Lower plumage yellow. | |
| *a′.* Chin and upper throat white; crest greenish yellow | *C. flaveolus*, p. 255. |
| *b′.* Chin, throat, and upper breast white; crest greyish | *C. burmanicus*, p. 256. |
| *b.* Lower plumage ochraceous. | |
| *c′.* Chin and throat white; crest rufescent olive-brown | *C. gutturalis*, p. 256. |
| *d′.* Chin, throat, and upper breast white; crest grey | *C. griseiceps*, p. 257. |

### 263. **Criniger flaveolus.** *The White-throated Bulbul.*

Trichophorus flaveolus, *Gould, P. Z. S.* 1836, p. 6.

Criniger flaveolus (*Gould*), *Blyth, Cat.* p. 208; *Horsf. & M. Cat.* i, p. 252; *Jerd. B. I.* ii, p. 83; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; xlv, pt. ii, p. 79; *Hume, Cat.* no. 451; *Scully, S. F.* viii, p. 295; *Sharpe, Cat. B. M.* vi, p. 77; *Hume, S. F.* xi, p. 178; *Oates in Hume's N. & E.* 2nd ed. i, p. 162.

*Kussop-eechiop-pho,* Lepch.

*Coloration.* Head and crest olive-brown, each feather edged with olive-green; back, rump, and lesser wing-coverts olive-green tinged with rufous; tail rufous-brown; lores and cheeks grey; ear-coverts darker grey; chin and upper throat white; the remaining lower plumage and under wing-coverts bright yellow; wings dark brown, the outer webs rufescent brown.

Bill greyish-blue-horny; gape whitish fleshy; iris red-brown; feet livid fleshy (*Scully*).

Length about 9; tail 3·5; wing 3·8; tarsus ·8; bill from gape ·9.

*Distribution.* The Himalayas from Nepal to the head of the Assam valley; the Nága, Gáro, and Khási hills; Sylhet; Cachar; Manipur; Tipperah. This species is found at low elevations, and seldom above 5000 feet.

*Habits, &c.* Breeds in Sikhim in July and August, constructing a shallow nest of dead leaves bound together by fine roots in small trees not more than 10 feet from the ground. The eggs, generally two in number, are pink marked with hair-lines, blotches, and spots of brownish maroon or brickdust-red. They measure about 1 by ·7.

### 264. **Criniger burmanicus.** *The Burmese White-throated Bulbul.*

Criniger flaveolus, *apud Blyth, Birds Burm.* p. 134.
Criniger griseiceps, *Hume, apud Wald. in Blyth, Birds Burm.* p. 134; *Hume, S. F.* ii, p. 476; *Hume & Dav. S. F.* vi, p. 300; *Hume, Cat.* no. 451 bis (part.); *Sharpe, Cat. B. M.* vi, p. 77 (part.); *Bingham, S. F.* ix, p. 182; *Oates, B. B.* i, p. 183 (part.); *Salvadori, Ann. Mus. Civ. Gen.* (2) v. p. 596.

*Coloration.* Resembles *C. flaveolus.* Differs in having the upper part of the breast white like the throat, and the crown and crest greyish brown, with the longer feathers of the latter (in good specimens) tipped olive-green.

Bill plumbeous white; iris brown; legs and feet fleshy brown (*Bingham*).

Length about 9; tail 4; wing 4·2; tarsus ·8; bill from gape 1·1.

This species, which has long been confounded with *C. griseiceps*, is very distinct from it, and resembles the Himalayan bird, of which many naturalists may only consider it a race.

*Distribution.* Toungngoo; the Karen hills; Karennee; Tenasserim, as far south as Meetan at the base of Muleyit mountain, and throughout the Thoungyeen valley. It is doubtful whether it is this species or *C. flaveolus* which occurs in Arrakan, as recorded by Blyth.

### 265. **Criniger gutturalis.** *The Malayan White-throated Bulbul.*

Trichophorus gutturalis, *S. Müll., Bonap. Consp. Av.* i, p. 262 (1850).
Criniger ochraceus, *Moore in Horsf. & M. Cat.* i, p. 252 (1854); *Blyth & Wald. Birds Burm.* p. 134; *Hume & Dav. S. F.* vi, pp. 301, 515.
Criniger gutturalis (*S. Müll.*), *Hume, Cat.* no. 451 ter; *Bingham, S. F.* ix, p. 182; *Sharpe, Cat. B. M.* vi, p. 80; *Oates, B. B.* i. p. 185.

*Coloration.* The whole upper plumage olive-brown with an ochraceous tinge, rufescent on the head, crest, and upper tail-coverts; tail rufous-brown, tipped with a lighter shade of the same; wings brown, the outer webs rufescent; lores and a ring round the eye greyish; ear-coverts brown with pale shafts; chin and throat white; lower plumage fulvous-brown or ochraceous yellowish on the middle of the abdomen, and becoming buff on the under tail-coverts.

Legs and feet light pinkish brown; upper mandible dark horny brown; lower mandible plumbeous; iris wood-brown (*Hume & Davison*).

Length about 9; tail 4; wing 4; tarsus ·7; bill from gape 1.

Specimens from the southern part of the Malay peninsula have the tail shorter, but do not otherwise differ from Tenasserim birds. In Borneo and Sumatra the birds have a much larger bill, but correspond with Tenasserim birds in other respects. In Sumatra, in addition to the present, there occurs another species or race, recognizable by its deep greyish-brown head. It has been named *C. sumatranus* by Wardlaw Ramsay. The Chinese bird was named *C. pallidus* by Swinhoe; but I cannot discover that it differs in any respect from *C. gutturalis.*

*Distribution.* This species appears to be abundant in Tenasserim from its southern extremity up to the neighbourhood of Tavoy, and Bingham records the occurrence of a specimen at Moulmein. It extends down the Malay peninsula to Sumatra and Borneo.

### 266. **Criniger griseiceps.** *Hume's White-throated Bulbul.*

Criniger griseiceps, *Hume, S. F.* i, p. 478 (1873), iii, p. 124; *Hume, Cat.* no. 451 bis (part.); *Sharpe, Cat. B. M.* vi, p. 77 (part.); *Oates, S. F.* x, p. 209; *id. B. B.* i, p. 183 (part.).

*Coloration.* Lores, cheeks, and ear-coverts pale grey; chin, throat, and upper breast white; lower plumage ochraceous, tending to buff on the under tail-coverts; head, crest, and nape grey; upper plumage with the smaller wing-coverts yellowish green; upper tail-coverts and tail rufescent; wings and greater coverts dark brown, the outer webs rufescent; in birds the plumage of which is much worn the colours are more dull.

Bill bluish, darker on the anterior half of the culmen and the tip; eyelids plumbeous; iris reddish brown; inside of mouth bluish fleshy; legs pinkish brown; claws pale horn.

Length nearly 9; tail 3·8; wing 3·9; tarsus ·85; bill from gape 1.

This species is allied to *C. gutturalis*, from which it differs in having the upper part of the breast white and the head and crest grey.

*Distribution.* The eastern slopes of the Pegu hills from the latitude of Thayetmyo to that of Rangoon. The range of the present species probably extends north of these limits.

## Genus **TRICHOLESTES**, Salvadori, 1874.

The genus *Tricholestes* is remarkable for the numerous long hairs which spring from the back. These hairs lie close to the feathers, and are not distinctly visible till lifted up.

In *Tricholestes* the bill is very strong for the size of the bird. The culmen is straight for half its length, and the tip of the upper mandible is strongly hooked and notched; the frontal and rictal bristles are long. The head is not crested. The wing is blunt, the tail slightly rounded, and the feet are exceedingly small and weak.

### 267. Tricholestes criniger. *The Hairy-backed Bulbul.*

Brachypodius (?) criniger, *A. Hay, Blyth, J. A. S. B.* xiv, p. 577 (1845).
Setornis (?) criniger (*A. Hay*), *Blyth, Cat.* p. 212.
Trichophorus minutus, *Hartl. Journ. f. Orn.* 1853, p. 156.
Tricholestes criniger (*Hay*), *Hume & Dav. S. F.* vi, p. 304; *Tweedd. Ibis,* 1877, p. 306; *Hume, Cat.* no. 451 sex; *Sharpe, Cat. B. M.* vi, p. 89; *Oates, B. B.* i, p. 186.

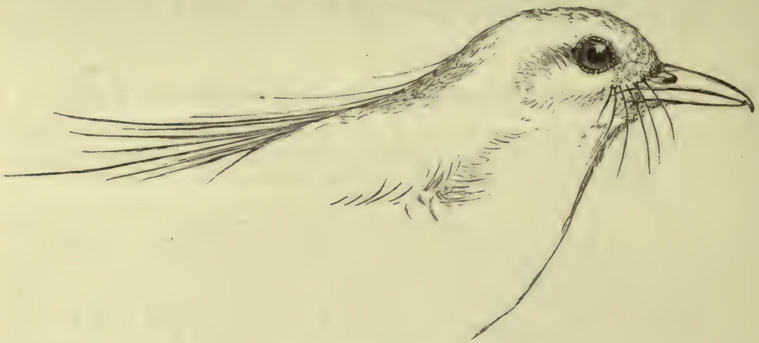

Fig. 81.—Head and back of *T. criniger.*

*Coloration.* Forehead and crown olive-brown; hind neck, back, and rump dull olive-green; wing-coverts browner; quills brown, the tertiaries and the outer webs of the others rufescent; tail rufescent, the outer webs edged with greenish and the outer feathers tipped whitish; lores yellow; sides of the head yellow, the tips of the feathers dusky; chin and throat whitish; lower plumage yellow, the breast and sides of the body washed with ashy; under tail- and wing-coverts yellow.

Legs and feet pale bluish or pinkish brown or salmon-fleshy; claws pale plumbeous blue; lower mandible and edge of the upper pale plumbeous; ridge of culmen and tip of the upper mandible black; rest of upper mandible dark plumbeous, sometimes horny-brown; iris pale umber or snuffy brown to dark brown (*Hume & Davison*).

Length nearly 7; tail 3; wing 3·1; tarsus ·6; bill from gape ·8.

*Distribution.* The extreme south of Tenasserim. The range extends down the Malay peninsula to the islands of Sumatra, Java, and Borneo.

*Habits, &c.* This bird frequents brushwood in small parties, hunting the branches and leaves for insects, which appear to be its principal food. Davison remarks that this Bulbul is very tame and easily approached, but that its plumage is always in bad condition, rendering the preparation of a good specimen a matter of difficulty.

## Genus **ALOPHOIXUS**, n. gen.

The bird for which I propose the above generic designation has hitherto been placed with *Criniger*. It differs from that genus in entirely wanting a crest, a character of sufficient importance, in my estimation, to warrant its separation from *Criniger*, in which genus the crest is remarkably long and conspicuous.

### 268. **Alophoixus phæocephalus.** *The Crestless White-throated Bulbul.*

Ixos phæocephalus, *Hartl. Rev. Zool.* 1844, p. 401.
Criniger gularis (*Horsf.*), *apud Blyth, Cat.* p. 208.
Criniger cantori, *Moore, P. Z. S.* 1854, p. 279; *Horsf. & M. Cat.* i, p. 410.
Criniger phæocephalus (*Hartl.*), *Wald. Ibis,* 1871, p. 169, pl. vi, fig. 2; *Hume & Dav. S. F.* vi, p. 302; *Hume, Cat.* no. 451 quat.; *Sharpe, Cat. B. M.* vi, p. 74; *Oates, B. B.* i, p. 183.

*Coloration.* Crown of head and the nape blackish, each feather edged with bluish grey; lores whitish; sides of the head and neck and a narrow half-collar on the hind neck ashy grey, darker posteriorly; chin and throat white; remaining lower plumage bright yellow washed with olive on the sides of the body; under wing-coverts yellow; back, rump, and upper wing-coverts olive-green, the lateral feathers of the rump washed with yellow at the tips; upper tail-coverts and tail rufous-brown; wings dark brown, the outer webs rufescent.

The legs, feet, and claws vary from fleshy white (sometimes with a pinkish tinge) to fleshy yellow; the upper mandible from dark plumbeous to dark horny-brown; lower mandible and edges of upper mandible pale plumbeous; irides snuff-brown, burnt sienna-brown, or reddish brown (*Hume & Davison*).

Length rather more than 8; tail 3·5; wing 3·6; tarsus ·8; bill from gape 1.

*Distribution.* The extreme south of Tenasserim, where this Bulbul appears to be common. It extends down the Malay peninsula to Sumatra and Borneo.

*Habits, &c.* Davison remarks that he has always found this bird in pairs or singly in thick forest and thin jungle, but never in clearings or gardens. Its note differs much from that of the other Bulbuls, but is of the same character.

## Genus **HYPSIPETES**, Vigors, 1831.

The genus *Hypsipetes* contains three Indian Bulbuls, which are characterized by grey or dark-brown plumage, red bills, and forked tails. The bill is slender, and about as long as the head, which is furnished with a crest of pointed feathers. The rictal bristles are very short, not exceeding a third of the length of the culmen. The wing is sharp, the secondaries falling short of the tip by a considerable distance. The tail is distinctly forked, and the outer feathers curved outwards. The tarsus is smooth and very short (see fig. 79, p. 253), being between a sixth and a seventh of the length of the wing. The three Indian species are closely allied, but they are easily recognizable, and they have, moreover, distinct areas of distribution.

*Key to the Species.*

*a.* A distinct black cheek-stripe contrasting with the throat .............................. *H. psaroides*, p. 260.
*b.* No cheek-stripe.
  *a'.* A black patch under the ear-coverts ...... *H. concolor*, p. 261.
  *b'.* No black patch under the ear-coverts...... *H. ganeesa*, p. 262.

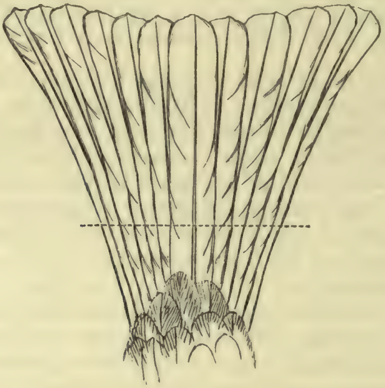

Fig. 82.—Tail of *H. psaroides.*

269. **Hypsipetes psaroides.** *The Himalayan Black Bulbul.*

Hypsipetes psaroides, *Vigors, P. Z. S.* 1831, p. 43; *Gould, Cent.* pl. 10; *Blyth, Cat.* p. 206; *Horsf. & M. Cat.* i, p. 254; *Jerd. B. I.* ii, p. 77; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 39; *Hume, N. & E.* p. 278; *Cock & Marsh. S. F.* i, p. 355; *Hume & Henders. Lah. to Yark.* p. 198; *Hume & Dav. S. F.* vi, p. 296; *Hume, Cat.* no. 444; *Scully, S. F.* viii, p. 293; *Sharpe, Cat. B. M.* vi, p. 36; *Oates, B. B.* i, p. 173; *C. H. T. Marshall, Ibis,* 1884, p. 415; *Hume, S. F.* xi, p. 176; *Oates in Hume's N. & E.* 2nd ed. i, p. 164.
Hypsipetes concolor, *Blyth, apud Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; xlv, pt. ii, p. 78.

*Ban Bakra,* at Mussoorie; *Phakki-pho,* Lepch.; *Durkal,* Chamba.

*Coloration.* Crown from the forehead to the nape, the lores, a spot at the base of the lower mandible, one at the angle of the chin, and a broad stripe from beneath the eye passing under the ear-coverts, and meeting a narrower line from the crown passing behind the ear-coverts, black; a spot over the lores grey; ear-coverts, chin, throat, breast, and flanks grey; abdomen and vent whitish, the feathers being grey with white margins; under tail-coverts grey, with broad white margins; upper plumage and wing-coverts dark grey; wings and tail dark brown, the greater part of the exterior edges grey.

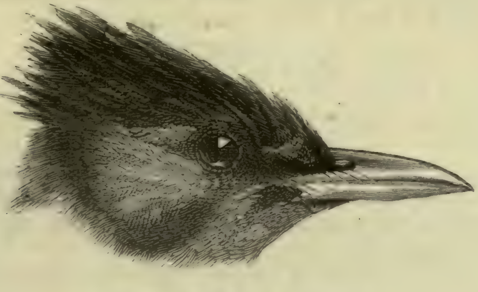

Fig. 83.—Head of *H. psaroides.*

Bill and feet bright coral-red; iris dark brown; claws horny-brown (*Scully*).

Length about 10; tail 4·6; wing 5; tarsus ·75; bill from gape 1·2.

*Distribution.* The Himalayas from Murree to the head of the Assam valley; the Khási hills; Sylhet; Cachar; Manipur; Arrakan. This species is found at all elevations up to 9000 feet.

*Habits, &c.* Breeds from 2000 to 7000 feet, from April to June, constructing its nest, which is made of grass and leaves bound together exteriorly by a good deal of cobweb, in the fork of a branch at a moderate height from the ground. The eggs, usually four in number, are white or pinkish, marked with various shades of red and purple, and measure 1·03 by ·75.

This bird is social, fearless, very noisy, and chiefly found near the tops of high trees. It feeds on fruit and the nectar contained in the larger flowers of such trees as the Rhododendron.

### 270. **Hypsipetes concolor.** *The Burmese Black Bulbul.*

Hypsipetes concolor, *Blyth, J. A. S. B.* xviii, p. 816 (1849); *id. Cat.* p. 207; *Blyth & Wald. Birds Burm.* p. 132; *Hume & Dav. S. F.* vi, p. 295; *Hume, Cat.* no. 446 bis; *Bingham, S. F.* ix, p. 181; *Sharpe, Cat. B. M.* vi, p. 38; *Oates, B. B.* i, p. 174; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 595.
Hypsipetes yunnanensis, *Anders. P. Z. S.* 1871, p. 213; *id. Yunnan Exped., Aves,* p. 656, pl. 50.
Hypsipetes subniger, *Hume, S. F.* v, p. 109 (1877).

*Coloration.* Resembles *H. psaroides.* The chin, lores, crown, hind neck, back, and lesser wing-coverts deep black, the edges of the feathers with a metallic gloss; rump and upper tail-coverts dark ashy; quills, tail, and the larger wing-coverts dark brown or blackish, margined with grey along the greater part of the outer edges; whole lower plumage dark grey; ear-coverts and cheeks paler; a patch of black under the ear-coverts; under tail-coverts dark grey, sometimes distinctly margined with white.

Legs, feet, and bill bright to deep coral-red; iris dull crimson-lake (*Hume & Davison*).

Length about 10·5; tail 4·8; wing 5; tarsus ·7; bill from gape 1·25.

*Distribution.* The hills east of Bhámo; Toungngoo, and the Karen hills east of that town; the whole of Tenasserim down to about the latitude of Muleyit mountain. This Bulbul appears to be found up to about 4000 feet.

*Habits, &c.* According to Davison this bird is found in the hill-clearings or camping-grounds, flying about from tree to tree in small flocks.

There are some closely allied species in China. *H. perniger* is deep black throughout; *H. nigerrimus* is also deep black, but the edges of the wing-feathers are grey; *H. leucocephalus* has the forehead and abdomen white; and *H. amaurotis* has the ear-coverts chestnut.

### 271. **Hypsipetes ganeesa.** *The Southern-Indian Black Bulbul.*

Hypsipetes ganeesa, *Sykes, P. Z. S.* 1832, p. 86; *Blyth, Cat.* p. 339; *Horsf. & M. Cat.* i, p. 255; *Jerd. B. I.* ii, p. 78; *Blyth, Ibis,* 1865, p. 42; *McMaster, J. A. S. B.* xl, pt. ii, p. 211; *Hume, S. F.* iv, p. 400; *Hume & Dav. S. F.* vi, p. 296; *Hume, Cat.* no. 446; *Legge, Birds Ceyl.* p. 469; *Sharpe, Cat. B. M.* vi, p. 39; *Butler, S. F.* ix, p. 401; *Barnes, Birds Bom.* p. 185; *Davison, S. F.* x, p. 383; *Oates in Hume's N. & E.* 2nd ed. i, p. 167.

Hypsipetes nilgherriensis, *Jerd. Madr. Journ. L. S.* x, p. 245 (1839); *Blyth, Cat.* p. 207; *Jerd. B. I.* ii, pp. 78, 872; *Hume, N. & E.* p. 280; *id. Cat.* no. 445.

*The Neilgherry Black Bulbul*; *the Ghat Black Bulbul,* Jerd.; *Kele Kondiya,* Ceyl.

*Coloration.* Resembles *H. psaroides*, but the plumage is of a much darker shade of grey, and the grey of the sides of the head is not in strong contrast with the black crown; there is no black streak either behind or under the ear-coverts, the grey of this part being confluent with that of the lower plumage; the grey spot over the lores is absent, and there is less white on the abdomen.

Bill orange-vermilion; feet orange-yellow; iris hazel dyed with lake-red (*Fairbank*).

Length about 9·5; tail 4; wing 4·7; tarsus ·75; bill from gape 1·2.

*Distribution.* The hill-ranges of Western India from Matheran to Cape Comorin; Ceylon. It is noteworthy that McMaster procured this bird at Chikalda on the Gawilgurh hills in Berar. It is found at all elevations, but not usually below 4000 feet.

*Habits, &c.* Breeds from March to June, making a shallow cup-like nest of grass and leaves in trees at all heights up to about 60 feet from the ground. The eggs are usually only two in number, and resemble those of *H. psaroides.* They measure 1·08 by ·75.

## Genus **HEMIXUS**, Hodgs., 1844.

The genus *Hemixus*, of which *H. flavala* is the type, contains five Indian species closely related to each other. It differs from *Hypsipetes* in having the tail square or slightly rounded, and its outer feathers straight. The crest consists of a great number of short but sharply-pointed feathers. The nuchal hairs are short and indistinct, but the rictal bristles are strong. The wing is pointed, the secondaries falling short of the tip by a considerable distance.

The birds of this genus do not habitually frequent forests and high trees like the Black Bulbuls, but they are found chiefly on the outskirts of forests and in secondary jungle. They are chiefly fruit-eaters.

### *Key to the Species.*

| | |
|---|---|
| *a.* Tail dark brown. | |
| *a'.* Whole upper plumage ashy ............ | *H. flavala*, p. 263. |
| *b'.* Whole upper plumage brown .......... | *H. davisoni*, p. 264. |
| *c'.* Head black, contrasting with the ashy back .............................. | *H. hildebrandi*, p. 264. |
| *b.* Tail green. | |
| *d'.* Throat whitish; remainder of lower plumage pale rufous...................... | *H. macclellandi*, p. 265. |
| *e'.* Throat and whole lower plumage more or less uniformly grey .................. | *H. tickelli*, p. 265. |

### 272. **Hemixus flavala.** *The Brown-eared Bulbul.*

Hemixus flavala, *Hodgs. J. A. S. B.* xiv, p. 572 (1845); *Blyth, Cat.* p. 207; *Horsf. & M. Cat.* i, p. 250; *Jerd. B. I.* ii, p. 80; *Blyth, Birds Burm.* p. 133; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106, xlv, pt. ii, p. 78; *Hume, S. F.* v, p. 111; *Anders. Yunnan Exped., Aves,* p. 657; *Hume, Cat.* no. 448; *Scully, S. F.* viii, p. 295; *Sharpe, Cat. B. M.* vi, p. 49; *Oates, B. B.* i, p. 175; *Hume, S. F.* xi, p. 176.

*Nalli-pindi*, Lepch.

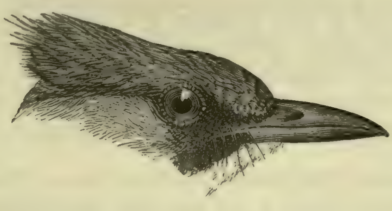

Fig. 84.—Head of *H. flavala*.

*Coloration.* Upper plumage with the small wing-coverts dark ashy, the crown edged paler, and the upper tail-coverts tinged with olive-green; tail brown, tinged with olive-green on the basal halves of the outer webs; greater wing-coverts brown on the inner and olive-yellow on the outer webs; quills brown; the fourth to the seventh primaries edged with grey below the emarginations, all the other quills edged externally with olive-yellow, obsolete on the earlier primaries, increasing on the others, and ultimately occupying the entire outer web of the tertiaries; lores and cheeks blackish; ear-coverts bronze-grey; chin, throat, centre of the abdomen, and vent white; breast, sides of neck, and flanks light grey.

Bill black; iris dark reddish brown; feet dusky (*Scully*).

Length about 8·5; tail 3·7; wing 3·8; tarsus ·7; bill from gape ·9.

*Distribution.* The Himalayas from Mussoorie to the head of the Assam valley; the Khási and Gáro hills; Manipur; the hills east of Bhámo; Arrakan. This bird appears to be found up to about 6000 feet.

### 273. **Hemixus davisoni.** *Davison's Brown-eared Bulbul.*

Hemixus davisoni, *Hume, S. F.* v, p. 111 (1877); *Hume & Dav. S. F.* vi, p. 299; *Hume, Cat.* no. 448 ter; *Sharpe, Cat. B. M.* vi, p. 51; *Oates, B. B.* i, p. 176.

*Coloration.* Resembles *H. flavala.* Differs in having the entire crown and nape a rich dark brown; the back, rump, upper tail-coverts, and smaller wing-coverts also brown but paler; in the tail being less suffused with olive-green and the breast being distinctly ashy and not grey; and lastly in the yellow edges to the quills being narrower.

Bill, legs, feet, and claws black; iris bright brown (*Darling*); iris crimson-lake (*Hume & Davison*).

Length about 8·5; tail 3·6; wing 4; tarsus ·6; bill from gape 1.

*Distribution.* This species has only been procured at Meetan and Thoungyah in Tenasserim. It is apparently entirely confined to the hill-forests.

### 274. **Hemixus hildebrandi.** *Hildebrand's Brown-eared Bulbul.*

Hemixus hildebrandi, *Hume, S. F.* ii, p. 508 (1874); *Wald. in Blyth's Birds Burm.* p. 133; *Hume, S. F.* v, p. 111; *Hume & Dav. S. F.* vi, p. 299; *Hume, Cat.* no. 448 bis; *Sharpe, Cat. B. M.* vi, p. 50; *Oates, B. B.* i, p. 176.

*Coloration.* Resembles *H. flavala.* Differs in having the forehead, crown, and nape dark brown or blackish, contrasting with the rest of the plumage.

Iris lake-brown; bill black; legs light brown (*Wardlaw Ramsay*). Iris crimson; bill black; legs and feet dark reddish horn-colour (*Hume & Davison*).

Length about 8·5; tail 3·8; wing 4·1; tarsus ·65; bill from gape 1.

*Distribution.* The pine-forests of the Salween district in Tenasserim at 3000 feet, and the Karen hills east of Toungngoo from 2000 to 4000 feet.

### 275. **Hemixus macclellandi.** *The Rufous-bellied Bulbul.*

Hypsipetes macclellandi, *Horsf. P. Z. S.* 1839, p. 159; *Blyth, Cat.* p. 207; *Horsf. & M. Cat.* i, p. 256; *Jerd. B. I.* ii, p. 79; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; *Hume, N. & E.* p. 281; *Blyth, Birds Burm.* p. 133; *Hume & Dav. S. F.* vi, p. 298; *Hume, Cat.* no. 447; *Scully, S. F.* viii, p. 294; *Hume, S. F.* xi, p. 176.
Iole macclellandi (*Horsf.*), *Sharpe, Cat. B. M.* vi, p. 59; *Oates, B. B.* i, p. 178.
Hemixus macclellandi (*Horsf.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 168.

*Chinchiok-pho*, Lepch.; *Chichiam*, Bhut.

*Coloration.* Crown, from the forehead to the nape, rich brown, the shafts white tinged with buff; upper plumage, wing-coverts, tertiaries, and tail olive-green, brightest on the tail, the shafts of which are black above and yellow below; lores and cheeks mixed grey and white; chin and throat white, the feathers with grey bases and lanceolate; ear-coverts and sides of the neck chestnut; breast the same but with pale shaft-stripes; abdomen and flanks pale chestnut; under tail-coverts, thighs, and vent ochraceous yellow; under wing-coverts the same; primaries and secondaries dark brown, edged with olive-green.

Bill blackish above, livid grey-horny below; iris brownish red or dark red; feet fleshy brown; claws brown-horny (*Scully*).

Length about 10; tail 4·4; wing 4·3; tarsus ·7; bill from gape 1·2.

*Distribution.* The Himalayas from Mussoorie to the head of the Assam valley; the Khási and Nága hills; Cachar; Manipur; Arrakan.

*Habits, &c.* Breeds from April to June, constructing a shallow nest of ferns, leaves, grass, and moss in a fork of a small tree. The eggs are pinkish white, speckled and spotted with reddish purple and measure about 1·05 by ·67.

### 276. **Hemixus tickelli.** *Tickell's Bulbul.*

Hypsipetes tickelli, *Blyth, J. A. S. B.* xxiv, p. 275 (1855); *Blyth & Walden, Birds Burm.* p. 133; *Hume & Dav. S. F.* vi, p. 296; *Hume, Cat.* no. 447 bis; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 596.
Iole tickelli (*Blyth*), *Sharpe, Cat. B. M.* vi, p. 60; *Oates, B. B.* i, p. 179.

*Coloration.* Resembles *H. macclellandi.* Differs in having the lower plumage grey tending to white on the abdomen, and the breast streaked with whitish shaft-stripes; in the ear-coverts and sides of the neck being pale rusty, which colour also tinges the breast; and in the shaft-stripes of the crest-feathers being broader and whiter.

Legs and feet fleshy pink, dark fleshy pink, light purplish brown, pale pinkish brown, or pale reddish brown; bill black, horny black, or dark horny brown; iris wood-brown, deep red-brown, light red, or crimson (*Hume & Davison*).

Length about 9·5; tail 4·2; wing 4; tarsus ·7; bill from gape 1·2.

*Distribution.* Karennee from 2500 to 4000 feet; the pine-forests of the Salween valley south to Muleyit mountain above 2500 feet.

*Habits, &c.* Usually occurs, according to Davison, on the outskirts of forests along the paths and thin jungle.

## Genus **ALCURUS**, Hodgs., 1843.

The only form of this genus is a conspicuous and easily recognized bird with ample crest and striped plumage. The crest springs from every portion of the crown and is of considerable length when erected, the feathers being narrow but of the same width throughout and not sharply pointed. The bill is small and only half the length of the head; the tarsus is scutellated as a rule, but in many instances is smooth or nearly so, a point probably depending on age. The tail is slightly rounded and the wing is tolerably sharp.

### 277. **Alcurus striatus.** *The Striated Green Bulbul.*

Trichophorus striatus, *Blyth, J. A. S. B.* xi, p. 184 (1842).
Alcurus nipalensis, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844).
Criniger striatus (*Blyth*), *Blyth, Cat.* p. 208; *Horsf. & M. Cat.* i, p. 253.
Alcurus striatus, *Blyth, J. A. S. B.* xii, p. 955; *Jerd. B. I.* ii, p. 81; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; xlv, pt. ii, p. 78; *Wald. in Blyth's Birds Burm.* p. 134; *Hume & Dav. S. F.* vi, p. 299; *Hume, Cat.* no. 449; *Sharpe, Cat. B. M.* vi, p. 91; *Oates, B. B.* i, p. 187; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 597; *Hume, S. F.* xi, p. 177; *Oates in Hume's N. & E.* 2nd ed. i, p. 169.

*Senim-plek-pho*, Lepch.; *Chichiam*, Bhut.

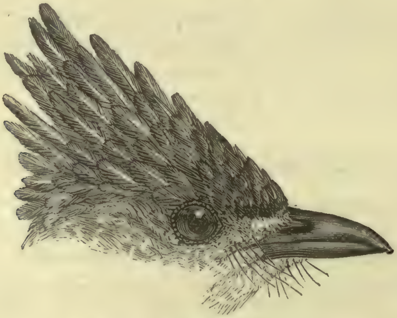

Fig. 85.—Head of *A. striatus.*

*Coloration.* Whole head, back, and scapulars olive-green, each feather with a yellowish-white shaft-stripe; rump and upper tail-coverts brighter with obsolete striations; tail brown, edged externally with olive-green, internally with yellowish, and the three outer pairs of feathers tipped with yellow; lesser and median coverts olive-green, brownish internally and with a few faint striations; greater coverts and quills brown on the inner and olive-green on the outer webs, the former also broadly margined with yellow; lores and chin bright yellow; throat yellow, with numerous triangular black spots; cheeks and ear-coverts dark brown, streaked with yellowish white; sides of the neck, breast, and upper abdomen dark slaty black, with broad pale yellow streaks; lower abdomen and flanks olive-brown, streaked with yellow, except in the middle, which, with the under tail- and wing-coverts, is yellow without striations.

Legs and feet very dark brown or deep plumbeous; bill black; iris deep red-brown (*Hume & Davison*).

Birds from Tenasserim and Manipur are much smaller than those from the Himalayas. Tenasserim specimens measure—length about 8·5; tail 3·7; wing 4·1; tarsus ·8; bill from gape 1: whereas specimens from Sikhim have the tail 4·3 and the wing 4·4. The sexes do not appear to differ much, if at all, in size.

*Distribution.* Nepal and Sikhim; Daphla hills in Assam; the Khási hills; Manipur; the ranges of hills east of Toungngoo; Muleyit mountain in Tenasserim; apparently at 5000 feet of elevation and upwards.

*Habits, &c.* This Bulbul is said by Jerdon to keep to the tops of high trees, going in small parties and having a mellow note, which is uttered both when feeding and on the wing. A nest found by Mandelli in Sikhim in May was made of fibrous roots and lined with grass. It was placed in a bamboo bush about four feet from the ground.

## Genus **MOLPASTES**, Hume, 1873.

The genus *Molpastes* comprises some Indian Bulbuls which are familiar garden birds. One of them (*M. humii*) appears to be very rare and local, but the others are widely distributed and common.

In *Molpastes* the crest is thick and of considerable length, the feathers growing from every portion of the crown and nape. The nuchal hairs are extremely short and difficult to detect. The wing is blunt and the tail is very slightly rounded. All the birds of this genus are remarkable for the bright colour of the under tail-coverts, and are further to be recognized by the broad white tips to the tail-feathers.

The birds of this genus are more frequently found in gardens and cultivated parts of the country than elsewhere. They go about in pairs and have very cheerful notes. They feed mostly on fruit and they are always to be found on fruit-bearing trees in large numbers, but they are not gregarious. Like other Bulbuls they are incapable of much progress on the ground, but they are frequently seen picking up fallen fruit and shuffling about by a series of short ungainly hops.

The Red-vented Bulbuls were in a state of great confusion till Sharpe in his 'Catalogue' rearranged them and pointed out the characters by which they might be distinguished from each other. The exact distribution of each species can only be determined by the examination of specimens, and fortunately the very large series of these birds in the British Museum has enabled me to work out their distribution in sufficient detail.

*Key to the Species.*

*a.* Under tail-coverts red.
  *a′.* The black on the crown sharply defined and not extending to the hind neck.
    *a″.* Ear-coverts black, undistinguishable from crown .................... *M. hæmorrhous*, p. 268.
    *b′.* Ear-coverts brown, contrasting with the black crown.
      *a‴.* Chin, throat, and upper breast deep black ........................ *M. burmanicus*, p. 269.
      *b‴.* Chin and upper part of throat only black ........................ *M. nigripileus*, p. 270.
    *c″.* Ear-coverts whitish like the lower plumage; point of chin only black . . *M. atricapillus*, p. 270.
  *b′.* The black on the crown extending to the hind neck or back and not sharply defined posteriorly.
    *d″.* Hind neck, back, sides of neck, chin, throat, and breast all deep black . . . . *M. bengalensis*, p. 271.
    *e″.* Hind neck black, throat and fore neck black shading into brown on the breast ........................ *M. intermedius*, p. 272.
*b.* Under tail-coverts sulphur-yellow.
  *c′.* Feathers of crown and crest edged with greyish white .................... *M. leucogenys*, p. 272.
  *d′.* Feathers of crown and crest entirely black ............................ *M. humii*, p. 274.
*c.* Under tail-coverts saffron-yellow ........ *M. leucotis*, p. 273.

278. **Molpastes hæmorrhous.** *The Madras Red-vented Bulbul.*

Muscicapa hæmorrhousa, *Gm. S. N.* i, p. 941 (1788).
Hæmatornis pusillus, *Blyth, J. A. S. B.* x, p. 841 (1841).
Pycnonotus hæmorrhous (*Gm.*), *Blyth, Cat.* p. 209; *Horsf. & M. Cat.* i, p. 240; *Jerd. B. I.* ii, p. 94; *Ball, S. F.* iii, p. 292; *Legge, Birds Ceyl.* p. 482; *Sharpe, Cat. B. M.* vi, p. 124; *Barnes, Birds Bom.* p. 188.
Pycnonotus chrysorrhoides (*Lafr.*), *Stoliczka, J. A. S. B.* xli, pt. ii, p. 237; *Ball, S. F.* ii, p. 410.
Molpastes pusillus (*Blyth*), *Hume, N. & E.* p. 291; *Butler, S. F.* iii, p. 473.
Pycnonotus pusillus (*Blyth*), *Blanf. S. F.* v, p. 246.
Molpastes hæmorrhous (*Gm.*), *Hume, Cat.* no. 462; *Davidson, S. F.* x, p. 386; *Barnes, Journ. Bom. N. H. Soc.* i, p. 48; *Oates in Hume's N. & E.* 2nd ed. i, p. 169.

*The Common Madras Bulbul*, Jerd.; *Bulbul*, Hind.; *Tonki bulbul*, Beng.; *Pigli-pitta*, Tel.; *Konda-lati*, Tam.

*Coloration.* The whole head, chin, and throat deep black, sharply defined at the back of the head; the whole neck, back, wing-coverts, scapulars, and breast brown, each feather margined with whitish; rump plain brown; upper tail-coverts white; tail brown at base, darkening and becoming black towards the end, and all the feathers tipped white; wing-quills brown, narrowly margined with whitish; abdomen whitish; sides of body and flanks light brown; under tail-coverts crimson; shafts of tail-feathers whitish beneath.

Iris deep brown; bill black; legs and feet blackish (*Butler*).

Length about 8; tail 3·8; wing 3·8; tarsus ·85; bill from gape ·85.

*Distribution.* Nearly the whole of India proper, the northern limit being indicated roughly by a line drawn through the following places: Umarkot, Jodhpur, Sámbhar, Umballa; thence a line along the base of the Himalayas to Behar in the line of longitude of Asansol near Raneegunje, and through that place to Burdwan. This species also occurs in Ceylon. Although essentially a bird of the plains it is occasionally found at considerable elevations on the Nilgiris, as high up, in fact, as Ootacamund.

*Habits, &c.* Breeds from February to August, constructing a flimsy, but pretty nest of dry leaves and grass in bushes, creepers, or the lower branches of trees, or sometimes on the top of a stump. The eggs, usually three in number, are pale pink marked with reddish brown and purplish grey, and measure about ·9 by ·65.

### 279. Molpastes burmanicus. *The Burmese Red-vented Bulbul.*

Pycnonotus hæmorrhous (*Gm.*), *apud Blyth & Wald. Birds Burm.* p. 135.
Molpastes pygmæus (*Hodgs.*), *Hume, S. F.* iii, p. 126; *Hume & Dav. S. F.* vi, p. 321.
Molpastes intermedius (*Hay*), *Hume & Inglis, S. F.* v, p. 35.
Pycnonotus pygæus (*Hodgs.*), *Oates, S. F.* v, p. 157.
Pycnonotus intermedius (*Hay*), *Oates, S. F.* v, p. 157.
Pycnonotus nigripileus (*Blyth*), *Anderson, Yunnan Exped., Aves,* p. 658.
Pycnonotus burmanicus, *Sharpe, Cat. B. M.* vi, p. 125 (1881); *Oates, S. F.* x, p. 211; *id. B. B.* i, p. 189; *Salvadori, Ann. Mus. Civ. Gen.* (2) iv, p. 596.
Molpastes burmanicus (*Sharpe*), *Hume, S. F.* xi, p. 183; *Oates in Hume's N. & E.* 2nd ed. i, p. 173.

*Coloration.* Resembles *M. hæmorrhous*, and has the black of the head as sharply defined posteriorly. Differs in having the ear-coverts glossy hair-brown; the black of the throat extending down to and overspreading the breast; the feathers on the lower part of the breast margined with greyish white, and the hind neck and back blackish (not brown), margined more broadly with grey (not whitish).

Bill and legs black; iris dark brown.

Length about 8; tail 3·8; wing 3·8; tarsus ·9; bill from gape ·9.

*Distribution.* The limits of this species on the north are difficult to define owing to want of specimens. Hume found it abundant, and the only species of this class of Bulbul, in Manipur. I have examined a specimen that was procured at Kámrúp in Assam and another at Shillong. Sharpe records it from Cachar, whence, however, I have not myself seen a specimen. Both Anderson and Fea procured it at Bhámo or in the immediate vicinity. Thence it appears to be spread throughout Burma down to the Gulf of Martaban on the south, and the Bay of Bengal on the west. On the east I cannot discover that it occurs beyond the Sittoung river.

*Habits, &c.* This species breeds from May to September throughout Pegu: its mode of nidification and the colour of its eggs do not differ in any respect from those of *M. hæmorrhous.*

### 280. **Molpastes nigripileus.** *The Tenasserim Red-vented Bulbul.*

Pycnonotus nigropileus, *Blyth, J. A. S. B.* xvi, p. 472 (1847); *id. Cat.* p. 209; *Wald. P. Z. S.* 1866, p. 549; *Blyth, Birds Burm.* p. 135; *Sharpe, Cat. B. M.* vi, p. 126; *Oates, B. B.* i, p. 191; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 597.

Molpastes nigropileus (*Blyth*), *Hume & Dav. S. F.* vi, p. 321; *Hume, Cat.* no. 462 bis.

*Coloration.* Resembles *M. hæmorrhous*, and has the black of the head as sharply defined posteriorly. Differs in having the ear-coverts glossy hair-brown, the lores, cheeks, and chin black, and the throat and breast brown, the feathers edged with whitish.

Bill, legs, feet, and claws black; iris deep brown (*Hume & Davison*).

Length about 8·5; tail 3·7; wing 3·7; tarsus ·9; bill from gape ·8 to ·9.

*Distribution.* Confined to the east of the Sittoung river, and ranging from Toungngoo and the Karen hills down to Amherst.

### 281. **Molpastes atricapillus.** *The Chinese Red-vented Bulbul.*

Muscicapa atricapilla, *Vieill. Nouv. Dict. d'Hist. Nat.* xxi, p. 489 (1818).

Hæmatornis chrysorrhoides, *Lafr. Rev. Zool.* 1845, p. 367.

Molpastes chrysorrhoides (*Lafr.*), *Hume, S. F.* ii, p. 477.

Pycnonotus atricapillus (*Vieill.*), *Wald. in Blyth's Birds Burm.* p. 136; *Sharpe, Cat. B. M.* vi, p. 127; *Oates, B. B.* i, p. 190; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 598.

Molpastes atricapillus (*Vieill.*), *Hume & Dav. S. F.* vi, p. 322; *Hume Cat.* no. 462 ter; *Oates in Hume's N. & E.* 2nd ed. i, p. 173.

*Coloration.* Resembles *M. hæmorrhous*, and has the black of the head as sharply defined posteriorly. Differs in having the ear-coverts hoary white, with the lores, cheeks, and only the point of the chin black; the remaining lower plumage ashy brown, whiter on the abdomen; and the hind neck and back a paler brown with broader edges.

Bill, legs, feet, and claws black; iris brown to dark brown (*Hume & Davison*); iris light brown (*Wardlaw Ramsay*).

Length about 8·5; tail 3·7; wing 3·6; tarsus ·9; bill from gape ·9.

*Distribution.* Karennee and Tenasserim down to about the 13th degree of latitude. This species is not found west of the Sittoung river. It inhabits the hilly and well-wooded parts of the country up to 2000 feet of elevation, and it extends into China, where it is abundant.

*Habits, &c.* A nest of this bird with three eggs was found in Tenasserim by Darling on the 16th March.

### 282. **Molpastes bengalensis.** *The Bengal Red-vented Bulbul.*

Ixos cafer, v. pygæus, *Hodgs. in Gray's Zool. Misc.* p. 84 (descr. nullâ, 1844).
Pycnonotus bengalensis, *Blyth, J. A. S. B.* xiv, p. 566 (1845); *id. Cat.* p. 209.
Pycnonotus pygæus (*Hodgs.*), *Horsf. & M. Cat.* i, p. 239; *Jerd. B. I.* ii, p. 93; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 178; *Sharpe, Cat. B. M.* vi, p. 128.
Molpastes pygæus (*Hodgs.*), *Hume, N. & E.* p. 290; *Cripps, S. F.* vii, p. 281; *Hume, Cat.* no. 461; *Scully, S. F.* viii, p. 296.
Molpastes bengalensis (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 174.

*The Common Bulbul,* Jerd.; *Bulbul,* Hind.; *Kala Bulbul,* Beng.; *Mancliph-pho,* Lepch.; *Paklom,* Bhut.

*Coloration.* Resembles *M. hæmorrhous* in general appearance. Differs in having the ear-coverts chocolate-brown, and, with this exception, the whole head, neck, upper back, chin, throat, and upper breast deep glossy black; the lower breast black, margined with white; and the remainder of the lower plumage ashy brown, except the under tail-coverts, which are, as usual, crimson; the lower back blackish margined with grey.

Iris brown; bill and legs black (*Cockburn*).

Length about 9; tail 4·2; wing 4·2; tarsus 1; bill from gape ·9.

*Distribution.* The lower ranges of the Himalayas from Kumaun to the head of the Assam valley; Oudh; Northern Behar; Bengal, east of the longitude of Burdwan; Assam and its hill-ranges; Dacca; Cachar; Tipperah. I have also seen a specimen from Manipur, where, however, *M. burmanicus* is the prevailing species. Jerdon asserts that this Bulbul extends to Central India, north of the Nerbudda river. This may be the case, but I have myself seen no specimen from any locality other than those above mentioned. In the Himalayas it is found up to about 7000 feet.

*Habits, &c.* This Bulbul appears to breed from April to June, and probably both before and after that period. Its mode of nidification appears to differ in no respect from that of *M. hæmorrhous.* The eggs measure about ·95 by ·7.

### 283. **Molpastes intermedius.** *The Punjab Red-vented Bulbul.*

Pycnonotus intermedius, *A. Hay, Jerd. B. I.* ii, p. 95; *Blyth, Ibis,* 1867, p. 9; *Beavan, Ibis,* 1867, p. 441; *Sharpe, Cat. B. M.* vi, p. 130.

Pycnonotus pygæus (*Hodgs.*), *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 39; *Cock & Marsh. S. F.* i, p. 355; *C. H. T. Marshall, Ibis,* 1884, p. 415.

Molpastes intermedius (*A. Hay*), *Oates in Hume's N. & E.* 2nd ed. i, p. 175.

*Kala painju,* Chamba.

*Coloration.* Resembles *M. hæmorrhous.* Differs in having the black of the head continued to the hind neck; the ear-coverts chocolate-brown; the whole back brown, edged with grey; the black of the throat shading off into blackish brown on the upper breast and the sides of the neck; and the lower breast ashy brown margined with whitish.

Length about 8; tail 4·3; wing 4·1; tarsus 1·1; bill from gape ·9.

*Distribution.* The lower ranges of the Himalayas from Naini Tal and Almora to Murree; the northern portion of the Punjab, the N.W. Provinces and Oudh down to Allahabad and Chupra. In the lower part of its range this species is found together with *M. bengalensis.* It does not ascend the Himalayas to any great height.

*Habits, &c.* Breeds from May to July, and probably for some time before and after this period. The eggs, according to Theobald, measure ·87 by ·62.

### 284. **Molpastes leucogenys.** *The White-cheeked Bulbul.*

Brachypus leucogenys, *Gray, in Hardw. Ill. Ind. Zool.* ii, pl. 35, fig. 3 (1830).

Pycnonotus leucogenys (*Gr.*), *Blyth, Cat.* p. 209; *Horsf. & M. Cat.* i, p. 242.

Otocompsa leucogenys (*Gr. & Hardw.*), *Jerd. B.I.* ii, p. 90; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 39; *Hume, N. & E.* p. 285; *Cock & Marsh. S. F.* i, p. 355; *Brooks, S. F.* iii, p. 238; *Hume, Cat.* no. 458; *Scully, S. F.* viii, p. 296; *Sharpe, Cat. B. M.* vi, p. 160; *C. H. T. Marshall, Ibis,* 1884, p. 415.

Molpastes leucogenys (*Gray*), *Oates in Hume's N. & E.* 2nd ed. i, p. 175.

*The White-cheeked Crested Bulbul,* Jerd.; *Manglio-kur* or *Mancliph-kur,* Lepch.; *Kandghara,* Beng.; *Painju,* Chamba.

*Coloration.* Forehead and crest hair-brown, each feather narrowly edged with greyish white; lores black, with a white line above them; cheeks, round the eye, chin, and throat black; ear-coverts white, with a black patch behind them, and another patch striped white and brown below them; upper plumage olive-brown, the hinder part and sides of the neck barred with blackish, and the centres of the feathers brown; wings brown, edged with olive-brown; tail brown on the basal half, black on the terminal half, and all the feathers except the two middle ones tipped with white; lower plumage pale earthy brown, whitish on the abdomen; lower tail-coverts bright sulphur-yellow; edge of wing white.

Bill black; legs plumbeous; iris brown (*Jerdon*); legs and toes brownish black (*Scully*).

Length nearly 8; tail 3·5; wing 3·5; tarsus ·8; bill from gape ·85.

*Distribution.* The Himalayas from Murree to Bhutan, from the plains up to 7000 feet. This species extends into Afghanistan.

*Habits, &c.* Breeds between 3000 and 7000 feet from April to July, constructing a very loose and slender nest of stems of plants and grass in a bush or branch a few feet above the ground. The eggs are pinkish or reddish white marked with various shades of red, and measure ·88 by ·65.

### 285. **Molpastes leucotis.** *The White-eared Bulbul.*

Ixos leucotis, *Gould, P. Z. S.* 1836, p. 6.

Pycnonotus leucotis (*Gld.*), *Blyth, Cat.* p. 209; *Horsf. & M. Cat.* i, p. 242; *Sharpe, Cat. B. M.* vi, p. 136.

Otocompsa leucotis (*Gld.*), *Jerd. B. I.* ii, p. 91; *Hume, S. F.* i, p. 181; *id. N. & E.* p. 286; *Stoliczka, J. A. S. B.* xli, pt. ii, p. 237; *Adam, S. F.* i, p. 378; *Butler, S. F.* iii, p. 473; *Hume, Cat.* no. 459; *Barnes, Birds Bom.* p. 187.

Molpastes leucotis (*Gould*), *Oates in Hume's N. & E.* 2nd ed. i, p. 177.

*The White-eared Crested Bulbul*, Jerd.; *Kangdhara*, Beng.; *Kushandra* or *Kushanbra* of the Punjab; *Bhooroo*, Sind.

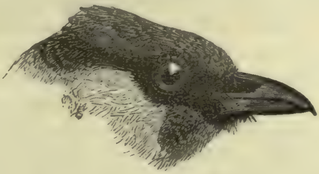

Fig. 86.—Head of *M. leucotis*.

*Coloration.* Ear-coverts and hinder part of cheeks white; with this exception, the whole head and lower throat black, the black on the latter expanding laterally, and joining the crown by a narrow band at the end of the ear-coverts; hind neck rich brown, narrowly banded with blackish; whole upper plumage and wings earthy brown, the back with paler margins, the wings margined with pale ashy; tail brown at base, becoming black beyond the tail-coverts and tipped with white; lower plumage whity brown; under tail-coverts rich saffron-yellow.

Legs, feet, and bill black; iris brown (*Hume*).

Length 7·5; tail 3·4; wing 3·5; tarsus ·75; bill from gape ·75.

*Distribution.* Sind; Cutch; Guzerat; Rajputana; the Punjab; the N.W. Provinces down to Etáwah; Central India as far east as Jhánsi, Saugor, and Hoshangabad. This bird extends westward into Persia.

*Habits, &c.* Breeds from May to August, constructing a neat cup of vegetable fibres in bushes, and laying three or four eggs, which are similar to those of *M. leucogenys*, and measure ·83 by ·64.

### 286. **Molpastes humii.** *Hume's White-eared Bulbul.*

*Coloration.* Resembles *M. leucotis.* Differs in having the crest much longer and the under tail-coverts sulphur-yellow.

Bill, legs, and feet black; iris brown (*Hume*).

Length 8; tail 3·4; wing 3·7; tarsus ·75; bill from gape ·75.

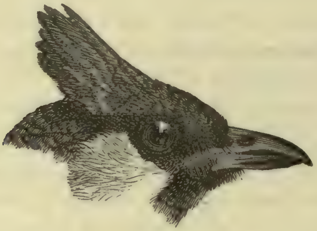

Fig. 87.—Head of *M. humii.*

Amongst a large series of *M. leucotis* in the British Museum, I detected one specimen which differed remarkably from all the others in the colour of its under tail-coverts, and on further examining it I found that it had a much longer crest than the others. *M. leucotis* is remarkably constant in having saffron-yellow coverts and a short bushy crest. I have therefore no hesitation in separating *M. humii*, and naming it after Hume, who procured the only specimen I have been able to examine at Jalálpoor near Jhelum, in the Punjab, in 1871. From *M. leucogenys* it differs, among other things, in having the crest much shorter and of a different shape and colour.

### Genus **XANTHIXUS**, n. gen.

I institute this genus for the reception of *X. flavescens*, a Bulbul which differs from all its near allies in the very decided graduation of its tail, the outer feather of which falls short of the tail by a distance equal in length to the tarsus. The crest resembles in many respects that of *Hemixus.* The wing is blunt, as in *Molpastes.*

### 287. **Xanthixus flavescens.** *Blyth's Bulbul.*

Pycnonotus flavescens, *Blyth, J. A. S. B.* xiv, p. 568 (1845); *id. Cat.* p. 210; *Horsf. & M. Cat.* i, p. 244; *Anders. Yunnan Exped., Aves*, p. 659; *Sharpe, Cat. B. M.* vi, p. 143; *Oates, B. B.* i, p. 192; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 598.

Ixus flavescens (*Blyth*), *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; *Bl. & Wald. Birds Burm.* p. 134; *Hume & Dav. S. F.* vi, p. 306; *Wardlaw Ramsay, Ibis*, 1877, p. 466; *Hume, Cat.* no. 452 bis; *id. S. F.* xi, p. 179.

*Coloration.* Forehead and crown dark brown, the feathers of the front half of the crown edged with grey, those of the hinder half with olive-green; upper plumage olive-green, the feathers of the back with darker centres; wings and tail dark brown, edged with bright olive-yellow on the outer webs, and the three outer pairs of tail-feathers faintly tipped with yellowish white; lores blackish, a conspicuous band above them, together with the feathers on the eyelids, yellowish; sides of the head greenish brown; chin and throat the same, but usually tinged with fulvous; breast dull yellow, streaked with brown; abdomen dull yellow; sides of body olive-brown; vent and under tail-coverts bright yellow; edge of wing and under wing-coverts fulvous yellow.

Legs, feet, and claws very dark reddish or purplish brown to black; bill black; iris brown to deep red-brown (*Hume & Davison*).

Length about 8·5; tail 3·9; wing 3·4; tarsus ·85; bill from gape ·8.

*Distribution.* The Khási hills; Manipur; the neighbourhood of Bhámo; Arrakan; the Toungngoo hills and Karennee from 2500 to 4000 feet; Tenasserim down to a point halfway between Muleyit mountain and Paraduba, where this bird is found up to 4500 feet.

*Habits, &c.* Found in the outskirts of forests and in scrub-jungle.

## Genus **OTOCOMPSA**, Cabanis, 1851.

The three Indian Bulbuls which I place in this genus are remarkable for their very long crest, which springs entirely from the centre of the crown, the feathers of the hind crown and nape being short and of the usual character.

They have the same structure and habits as *Molpastes*, and are found in gardens and in jungle near cultivation. They have equally pleasant notes, and their plumage is gay.

*Otocompsa* may be known from the next genus by the softness of the shafts of the back-feathers and by the longer crest.

### *Key to the Species.*

*a.* Under tail-coverts red.
  *a'.* Tail-feathers tipped with white ........ *O. emeria*, p. 276.
  *b'.* Tail-feathers without white tips ........ *O. fuscicaudata*, p. 277.
*b.* Under tail-coverts yellow like the remainder of the lower plumage .................. *O. flaviventris*, p. 278.

### 288. **Otocompsa emeria**[*]. *The Bengal Red-whiskered Bulbul.*

Lanius emeria, *Linn. S. N.* i, p. 137 (1766).
Lanius jocosus, *Linn. S. N.* i, p. 138 (1766).
Muscicapa emeria, *Linn. S. N.* i, p. 326 (1766).
Ixos monticola, *McClell. P. Z. S.* 1839, p. 160.
Ixos pyrrhotis, *Hodgs. in Gray's Zool. Misc.* p. 84 (1844).
Pycnonotus jocosus (*L.*), *Blyth, Cat.* p. 208; *Horsf. & M. Cat.* i, p. 238.
Otocompsa jocosa (*L.*), *Jerd. B. I.* ii, p. 92 (part.); *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; *Sharpe, Cat. B. M.* vi, p. 157; *Oates, B. B.* i, p. 198.
Otocompsa monticola (*McClell.*), *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; xlv, pt. ii, p. 79; *Bl. & Wald. Birds Burm.* p. 135; *Hume, Cat.* no. 460 ter.
Otocompsa emeria (*L.*), *Hume, N. & E.* p. 287; *Hume, S. F.* ii, p. 225, iii, p. 126; *Armstrong, S. F.* iv, p. 325; *Oates, S. F.* v, p. 157; *Anders. Yunnan Exped., Aves,* p. 657; *Hume & Dav. S. F.* vi, p. 321; *Cripps, S. F.* vii, p. 280; *Hume, Cat.* no. 460; *Scully, S. F.* viii, p. 296; *Hume, S. F.* xi, p. 181; *Oates in Hume's N. & E.* 2nd ed. i, p. 178.

*The Red-whiskered Bulbul,* Jerd.; *Kanera bulbul,* Hind.; *Kara bulbul* and *Sipahi bulbul,* Beng.

*Coloration.* Forehead and crown of head, the lores, the front part of the cheeks, and a narrow moustachial streak surrounding the ear-coverts and joining the crown black; hinder part of cheeks and the ear-coverts white; a tuft of feathers springing from the lower eyelid, and passing over the ear-coverts, crimson; sides of the neck and a broad crescent, interrupted in the middle of the breast, brownish black; under tail-coverts crimson; the lower plumage white, washed with brown on the sides of the breast, the flanks, and the thighs; upper plumage and wings earthy brown, the latter edged paler on the outer webs of the quills; tail dark brown, the outer four, or sometimes five, pairs of feathers tipped with white; edge of wing pale pink.

The nestling does not acquire the red eye-tufts till it is two or three months old, and the under tail-coverts at first are pink.

Iris hazel-brown; mouth yellow; bill, legs, and claws black.

Length nearly 8; tail 3·5; wing 3·5; tarsus ·8; bill from gape ·85.

The variations which occur in the plumage of this bird throughout its great range are very trivial, and it is hard to understand how it became suggested that there were two or more species or races, as some naturalists at one time thought. The crimson ear-tuft varies somewhat in size and depth of tint. It attains its greatest length in Burma and the Malay peninsula, and it is also brighter in those countries. Throughout the Himalayas, in Manipur, and in China the tuft is of an intensely deep crimson, but it varies in length considerably, some birds having it quite as long as others from Pegu. It unfortunately happens that the tuft springs from the lower eyelid, and its length is therefore in some measure subject to variation as a result of the manner in which the head has been prepared; it is even quite possible for a careless taxidermist to perforate the lower eyelid and to cause the eye to appear surrounded by red feathers, as was apparently the case in some specimens which passed through Mr. Hume's hands (S. F. i, p. 309), but which are no longer in his collection.

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[*] I believe that the name of *L. emeria* of Linnæus applies to the Bengal bird, as the specimen is distinctly stated to have come from Bengal. In this case the term *L. jocosus*, applied to the Chinese bird, which is identical with that from Bengal, becomes a synonym, and the specific name of the Southern-Indian bird cannot be taken from *Muscicapa emeria*, L., as proposed by Sharpe, even if Linnæus's name was given to that species, which is doubtful. See Hume's exhaustive argument on this subject (S. F. xi, p. 181).

The terminal spots on the tail-feathers are generally found on the outer four pairs, but it is not uncommon to find them on the next pair as well, but in a reduced form.

*Distribution.* The lower ranges of the Himalayas from Simla to the head of the Assam valley; Oudh; the whole of Bengal, Orissa, and the Northern Circars; the eastern portion of Chutia Nagpur; Assam and all the hill-ranges and States lying to the south through Burma to the extreme southern point of Tenasserim; Karennee; the Andamans; the Nicobars, where these birds have been introduced. The species extends into China, Siam, and the Malay peninsula.

*Habits, &c.* This lively Bulbul is a familiar bird, being more frequently seen in gardens than elsewhere. It breeds from February to May or June, constructing a rather solid cup-shaped nest of twigs and leaves in bushes, creepers, and tangled thickets. The eggs, usually three in number, are pinkish white marked with various shades of red, and measure ·83 by ·63.

### 289. **Otocompsa fuscicaudata.** *The Southern Red-whiskered Bulbul.*

Otocompsa fuscicaudata, *Gould, P. Z. S.* 1865, p. 664; *Blanford, J. A. S. B.* xxxviii, pt. ii, p. 178; *Hume, J. A. S. B.* xxxix, pt. ii, p. 117; *id. N. & E.* p. 288; *Butler, S. F.* iii, p. 473; *Fairbank, S. F.* iv, p. 258; *Hume, S. F.* iv, p. 458; *Fairbank, S. F.* v, p. 405; *Davids. & Wend. S. F.* vii, p. 82; *Hume, Cat.* no. 460 bis; *Vidal, S. F.* ix, p. 64; *Butler, S. F.* ix, p. 402; *Davison, S. F.* x, p. 386; *Taylor, S. F.* x, p. 460; *Terry, S. F.* x, p. 476; *Barnes, Birds Bom.* p. 187; *Oates in Hume's N. & E.* 2nd ed. i, p. 180.
Otocompsa jocosa (*L.*), *McMaster, J. A. S. B.* xl, pt. ii, p. 212.
Otocompsa emeria (*L.*), *Sharpe, Cat. B. M.* vi, p. 159.

*Phari-bulbul,* Hind.; *Turaka pigli-pitta,* Tel.

*Coloration.* Resembles *O. emeria.* Differs in having no white tips to the tail-feathers, and in having the crescentic pectoral band either entire or only very slightly interrupted in the centre.

Of the same size as *O. emeria.*

On examining the large series of this bird in the British Museum, I find that specimens from Belgaum and the country north of it up to Abu have the pectoral band interrupted, and that those from localities south of Belgaum have it entire in almost all cases.

*Distribution.* The western coast and ghâts of India, from Cape Comorin to Baroda and on to Mount Abu, extending east to Chikalda in Berar; the eastern coast up to the Carnatic; Ramesvaram Island. The distribution of this species in the interior of the peninsula is not known.

*Habits, &c.* Apparently in all respects similar to those of *O. emeria*. This species breeds from February to May and June, and most frequently lays but two eggs. The eggs measure ·9 by ·66.

### 290. **Otocompsa flaviventris.** *The Black-crested Yellow Bulbul.*

Vanga flaviventris, *Tick. J. A. S. B.* ii, p. 573 (1833).

Brachypus melanocephalus, *Gray & Hardw. Ill. Ind. Zool.* ii, pl. 35, fig. 1 (1834).

Pycnonotus melanocephalus (*Gray & Hardw.*), *Blyth, Cat.* p. 210.

Pycnonotus flaviventris (*Tick.*), *Horsf. & M. Cat.* i, p. 247; *Hume, N. & E.* p. 285.

Rubigula flaviventris (*Tick.*), *Jerd. B. I.* ii, p. 88; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; *Blyth, Birds Burm.* p. 136; *Hume, S. F.* iii, p. 125; *Armstrong, S. F.* iv, p. 324; *Hume & Dav. S. F.* vi, p. 317; *Hume, Cat.* no. 456; *Wardlaw Ramsay, Ibis*, 1877, p. 467; *Scully, S. F.* viii, p. 295; *Bingham, S. F.* ix, p. 182; *Hume, S. F.* xi, p. 180.

Otocompsa flaviventris (*Tick.*), *Sharpe, Cat. B. M.* vi, p. 161; *Oates, B. B.* i, p. 199; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 599; *Oates in Hume's N. & E.* 2nd ed. i, p. 183.

*Zurd-bulbul*, Hind.; *Pahariya kangdhara* at Gorakhpur; *Mancliphhur*, Lepch.

*Coloration.* Head, chin, and throat black; sides of neck and lower plumage yellow; upper plumage olive-yellow; quills brown, washed with olive-yellow on the outer webs; tail brown, the feathers edged with olive-yellow on the outer webs nearly up to the tips.

Iris pale yellow; eyelids yellowish fleshy; bill dark brown; mouth fleshy yellow; legs brown; claws dark horn.

Length about 7·5; tail 3·5; wing 3·5; tarsus ·65; bill from gape ·75.

*Distribution.* The Himalayas from the Sutlej valley to Assam; the forests of the Central Provinces; Orissa south of the Mahanadi; Kalahandi; the whole tract of country stretching from Assam to Tenasserim; Karennee. This Bulbul appears to be found up to about 4000 feet. It extends to Cochin China and the Malay peninsula.

*Habits, &c.* This species is found in the forests as well as on their outskirts, in secondary jungle, and cultivated places. In some places it is very abundant and entirely absent from others. The nest is a cup made of twigs and roots placed in a bush. The eggs are white, very thickly marked with pink and red. Bingham gives the measurements of one egg as ·85 by ·61.

## Genus **PINAROCICHLA**, Sharpe, 1881.

The single species which constitutes this genus is very similar in general structure to *Otocompsa*. It differs in having a shorter crest and in having the back and rump covered with very dense plumage. The feathers of these parts, however, possess a peculiarity which has not before been noticed. Their shafts are rigid and spinous, and if the fingers are passed along the back from the tail towards the head the prickly character of the feathers can easily be felt. The present species clearly forms a link between the *Brachypodinæ* and the genus *Campophaga* among the Laniidæ.

This Bulbul appears to be similar to *Otocompsa* in habits.

### 291. **Pinarocichla euptilosa.** *The Crested Brown Bulbul.*

Brachypus eutilotus, *Jard. & Selby, Ill. Orn.* iv, pl. iii (? 1836).
Brachypus entilotus (*J. & S.*), *apud Blyth, Cat.* p. 339.
Brachypodius tristis, *Blyth, J. A. S. B.* xiv, p. 576 (1845).
Microtarsus cantori, *Moore, P. Z. S.* 1854, p. 279; *Horsf. & M. Cat.* i, p. 409.
Criniger tristis (*Blyth*), *Blyth, Ibis*, 1865, p. 47; *Hume & Dav. S. F.* vi, p. 303; *Hume, Cat.* no. 451 quint.
Euptilosus euptilosus (*J. & S.*), *Hume, S. F.* viii, pp. 62, 162.
Pinarocichla euptilosa (*J. & S.*), *Sharpe, Cat. B. M.* vi, p. 62; *Oates, B. B.* i, p. 180.

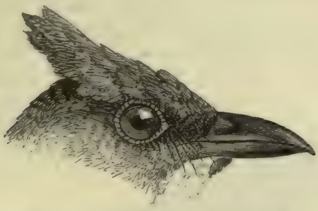

Fig. 88.—Head of *P. euptilosa*.

*Coloration.* Crown greyish brown, with blackish shaft-stripes; lores, cheeks, ear-coverts, and sides of the neck paler, with no stripes; back, rump, and scapulars ochraceous olive, the feathers of the rump banded with black showing up in places as dark patches; upper tail-coverts and tail ferruginous, the outer three pairs of feathers of the latter tipped with white; wing-coverts and tertiaries ochraceous, brighter than the back; primaries and secondaries dark brown, the outer webs ochraceous; the whole lower plumage whitish, suffused with grey on the breast and with yellow elsewhere.

The legs and feet vary from dark grey-brown, or very dark plumbeous brown, to black; the bill black; iris in the male crimson, in the female varying from wood-brown to litharge red (*Hume & Davison*).

Length about 9; tail 3·8; wing 3·8; tarsus ·75; bill from gape ·8.

*Distribution.* The extreme southern part of Tenasserim. This bird is found throughout the Malay peninsula and in Sumatra, Java, and Borneo.

## Genus **SPIZIXUS**, Blyth, 1845.

The genus *Spizixus* contains three birds, one of which is found in the hills of Assam and the others in China. This genus differs remarkably from all the other genera of Bulbuls in the shape of the bill, which is finch-like; and in having the nostrils partially concealed by overhanging plumelets.

Little is known of the habits of this genus, and its position is very uncertain. For the present I follow others in placing it among the Bulbuls. Its position will probably be found hereafter to be among the *Sibiinæ*.

In *Spizixus* the crest is thick, long and pointed. The bill is very short and deep, the culmen being gently curved throughout; the edges of the mandibles are slightly sinuated and notched near the tips. The tail is perfectly square, and the tarsus short and weak.

### 292. **Spizixus canifrons.** *The Finch-billed Bulbul.*

Spizixos canifrons, *Blyth, J. A. S. B.* xiv, p. 571 (1845); *id. Cat.* p. 339; *Horsf. & M. Cat.* i, p. 251; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 106; xliii, pt. ii, p. 179; *Blyth, Ibis,* 1872, p. 90; *Hume, S. F.* vii, p. 386; *id. Cat.* no. 453 bis; *Sharpe, Cat. B. M.* vi, p. 172; *Hume, S. F.* xi, p. 180; *Oates in Hume's N. & E.* 2nd ed. i, p. 184.

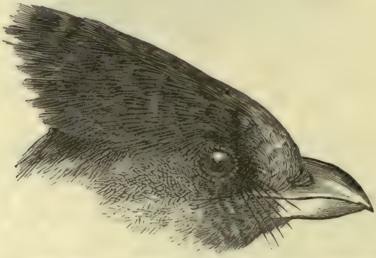

Fig. 89.—Head of *S. canifrons.*

*Coloration.* Forehead and front part of the crown ashy grey; remainder of crown, lores, and round the eye black; cheeks and point of the chin blackish, the feathers with greyish-white tips; ear-coverts pale brown; sides of the neck, meeting narrowly behind the nape, grey streaked slightly with blackish; throat very dark brown, shading off into ashy brown; upper plumage and wing-coverts green; wings dark brown, the outer webs greenish yellow;

tail greenish yellow, the terminal quarter black; lower plumage greenish yellow; under tail-coverts and edge of wing yellowish.

Legs and feet brownish fleshy; claws brown; bill yellowish-horny white; gape black; iris reddish brown (*Hume*); iris brown, hazel; bill greenish white (*Cockburn*).

Length about 8·5; tail 3·8; wing 3·7; tarsus ·8; bill from gape ·75.

*Distribution.* The Khási hills and Manipur.

*Habits, &c.* Godwin-Austen remarks that *S. canifrons* breeds near Shillong in May.

## Genus **TRACHYCOMUS**, Cabanis, 1851.

This genus is represented by a single bird of large size, striated plumage, and peculiar structure. It has no crest, but the crown is covered with dense bristly decomposed feathers of a yellow colour. The tarsus is remarkably strong, with a few scutellations in front, and sometimes quite smooth. The bill is short, being about half the length of the head, the rictal bristles strong and the nuchal hairs short. The wing is blunt, and the tail is well rounded.

The peculiar structure of the feathers of the crown and the large size will suffice to separate this Bulbul from all others.

### 293. **Trachycomus ochrocephalus.** *The Yellow-crowned Bulbul.*

Turdus ochrocephalus, *Gmel. S. N.* i, p. 821 (1788).
Criniger ochrocephalus (*Gm.*), *Blyth, Cat.* p. 208; *Horsf. & M. Cat.* i, p. 253.
Trachycomus ochrocephalus (*Gm.*), *Hume, S. F.* i, p. 455; *Hume & Dav. S. F.* vi, p. 300; *Hume, Cat.* no. 449 bis; *Sharpe, Cat. B. M.* vi, p. 93; *Oates, B. B.* i, p. 188; *id. in Hume's N. & E.* 2nd ed. i, p. 184 note.

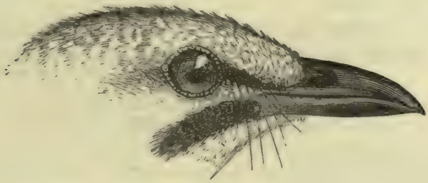

Fig. 90.—Head of *T. ochrocephalus.*

*Coloration.* Forehead, crown, a patch under the eye branching out into two streaks, one extending partially over the ear-coverts and one under, straw-yellow; ear-coverts brown with white shafts; lores and cheeks black, divided by a yellowish streak; upper plumage and lesser wing-coverts ashy brown dashed with green, all the feathers except those of the rump with conspicuous white shafts, and the upper tail-coverts margined with olive-green; greater coverts, wings, and tail dark brown; the quills of the wing with the outer webs mostly olive-green, those of the tail edged with greenish and tipped below with pale ochraceous; chin and throat white; breast and sides of the neck ashy brown, with white shaft-streaks; sides of the body brown with indistinct shaft-stripes; abdomen and vent brownish white; thighs and under tail-coverts ochraceous; under wing-coverts and axillaries ochraceous brown.

Legs and feet dark horny-brown or black; bill black; iris pale or litharge-red (*Hume & Davison*).

Length about 11; tail 5; wing 4·7; tarsus 1·1; bill from gape 1·2.

*Distribution.* The southern portion of Tenasserim as far north as Mergui. This species extends down the Malay peninsula to Sumatra, Java, and Borneo.

*Habits, &c.* This bird was observed by Davison to keep in parties and to frequent spare jungle in preference to forest. It occasionally descends to the ground. A nest found at Kossoom in July in the Malay peninsula was a shallow saucer made of creeper-stems with some grass and moss, and placed in a bush. The ground-colour of the eggs varied from pale pink to warm salmon-pink, and the markings were reddish and purplish. The eggs measure about 1·05 by ·75.

## Genus **IOLE**, Blyth, 1844.

The genus *Iole* is not characterized by any trenchant characters. In many respects it is intermediate between *Hemixus* and *Pycnonotus*, but differs from both in the sharp carination of the upper mandible of the bill.

In *Iole* the feathers of the crown are slightly lengthened, but they do not form a crest. The bill is about three-quarters the length of the head, and when viewed laterally is of much the same shape as that of *Hemixus* figured above (fig. 84, p. 263). The nuchal hairs are short.

One species occurs in Southern India, one in the Nicobar Islands, and two in the eastern parts of the Empire.

### *Key to the Species.*

*a.* Lower plumage streaked .................. *I. malaccensis*, p. 283.
*b.* Lower plumage unstreaked.
  *a'.* Crown and upper plumage uniformly of the same colour.
    *a''.* The entire lower plumage bright yellow. *I. icterica*, p. 283.
    *b''.* The lower plumage dull olive-yellow; the under tail-coverts fawn-brown .... *I. virescens*, p. 284.
  *b'.* Crown of a different colour to the upper plumage .......................... *I. nicobariensis*, p. 285.

### 294. **Iole malaccensis.** *The Streaked Bulbul.*

Hypsipetes malaccensis, *Blyth, J. A. S. B.* xiv, p. 574 (1845), xv, p. 51; *id. Cat.* p. 207; *Horsf. & M. Cat.* i, p. 256; *Hume & Dav. S. F.* vi, p. 298; *Hume, Cat.* no. 447 ter.

Hemixus malaccensis (*Blyth*), *Sharpe, Cat. B. M.* vi, p. 52; *Oates, B. B.* i, p. 177.

*Coloration.* Upper plumage brownish green; lesser wing-coverts the same; greater coverts, wings, and tail dark brown, edged with the same colour as the upper plumage; ear-coverts and sides of the head brownish green, the former with pale shafts; lores ashy grey; cheeks, chin, throat, and breast ashy, with broad greyish-white shaft-streaks; sides of the body the same, but with the shaft-streaks less distinct; abdomen, vent, and under tail-coverts white; under wing-coverts and axillaries pale yellow.

Legs and feet pinkish brown to reddish brown; bill horny brown or very dark horny brown; iris mahogany-brown to litharge-red (*Hume & Davison*).

Length about 9; tail 3·7; wing 4·5; tarsus ·7; bill from gape 1·1.

*Distribution.* Tenasserim, from Mergui southwards. Also throughout the Malay peninsula, extending to Sumatra and Borneo and to Cochin China.

*Habits, &c.* Davison remarks that the habits of this species resemble those of *Hemixus tickelli.*

### 295. **Iole icterica.** *The Yellow-browed Bulbul.*

Criniger ictericus, *Strickland, A. M. N. H.* xiii, p. 411 (1844); *Jerd. B. I.* ii, p. 82; *Hume, N. & E.* p. 282; *Fairbank, S. F.* iv, p. 258; *Bourdillon, S. F.* iv, p. 400; *Hume, Cat.* no. 450; *Legge, Birds Ceyl.* p. 472; *Vidal, S. F.* ix, p. 64; *Butler, S. F.* ix, p. 402; *Davison, S. F.* x, p. 383; *Barnes, Birds Bom.* p. 185.

Hemixus icterica (*Strickl.*), *Blyth, Cat.* p. 207; *Horsf. & M. Cat.* i, p. 250.

Xenocichla icterica (*Strickland*), *Sharpe, Cat. B. M.* vi, p. 96.

Iole icterica (*Strickl.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 185.

*Coloration.* A streak from the nostril to the eye, a circle round the eye, the sides of the head, and the whole lower plumage bright yellow, the sides of the breast and body and the ear-coverts washed with olive-green; the whole upper plumage bright olive-yellow; wings dark brown, the outer webs olive-yellow, the inner edged with yellow; tail olive-yellow, the edges above brighter, the inner edges and the shafts below yellow; under wing-coverts bright yellow.

Iris wood-brown; legs and feet pale blue; upper mandible brownish black, lower pale brown, darkest along the edges and the tip; claws bluish horny (*Davison*). Iris blood-red, dark red (*Butler*); iris blood-red (*Jerdon*).

Length about 8; tail 3·7; wing 3·8; tarsus ·75; bill from gape ·9.

*Distribution.* The western coast of India from near Mahableshwar to Cape Comorin. This bird is also found in Ceylon. It appears to be found from near the sea-level up to 6500 feet of elevation.

*Habits, &c.* This Bulbul has a soft mellow whistle, and frequents the undergrowth of the evergreen forests, venturing occasionally into gardens. It breeds from March to May, constructing a cup-like nest of fine twigs lined with grass. The nest is suspended by the rim between two lateral branches. The eggs are pinkish white speckled with brownish red or pink, and measure about ·96 by ·67. Hume remarks that the nest and egg of this bird differ remarkably from those of all the other Bulbuls. Possibly they will be found to resemble those of the other species of this genus, of which unfortunately we have at present no information whatever.

### 296. **Iole virescens.** *The Olive Bulbul.*

Iole virescens, *Blyth, J. A. S. B.* xiv, p. 573 (1845); *id. Cat.* p. 207; *Horsf. & M. Cat.* i, p. 254; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 270.

Iole viridescens, *Blyth, Ibis*, 1867, p. 7; *Blyth, Birds Burm.* p. 133; *Wardlaw Ramsay, Ibis*, 1877, p. 466; *Hume & Dav. S. F.* vi, pp. 315, 515; *Hume, Cat.* no. 452 dec.; *Sharpe, Cat. B. M.* vi, p. 56; *Oates, B. B.* i, p. 177; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 596; *Hume, S. F.* xi, p. 179.

*Coloration.* Upper plumage olive-green; the wings dark brown, the quills edged externally with rufescent olive-brown; tail and upper tail-coverts rufescent; lores and space over the eye olive-yellow; the ear-coverts darker; sides of the neck olive-brown; chin, throat, breast, flanks, and abdomen olive-yellow; under tail-coverts fawn-brown; under wing-coverts and axillaries pale yellow. The coloration of this bird varies considerably with the state of the plumage, newly-moulted birds being tinged with ochraceous below, and birds in worn plumage being dull olive-brown.

Iris brown; bill bluish horn-colour; inside of mouth flesh-colour; eyelids grey; legs and claws pinkish brown.

Length about 7; tail 3·2; wing 3·2; tarsus ·7; bill from gape ·9.

*Iole olivacea*, Blyth, occurs in the Malay peninsula and may probably be found hereafter in Tenasserim. It is difficult to separate this bird from *I. virescens* except by actual comparison of specimens; but the following points of difference may be noted. *I. olivacea* has a very much larger bill, the lower plumage has much less yellow in it, the upper plumage is olive-brown not olive-green, and the crown is rather darker than the back; the sides of the head are decidedly greyish, and the wings and tail are much darker. Both species are of much the same size except in respect to the bill.

*Distribution.* The Khási hills; Cachar; Tipperah; Manipur; Arrakan; the Tsankoo and Karen hills to the east of Toungngoo; the southern portion of the Pegu hills and the plains lying at their foot; the whole of Tenasserim. This species is found from sea-level up to 2000 or 3000 feet.

*Habits, &c.* Frequents forests in small bands.

### 297. **Iole nicobariensis.** *The Nicobar Bulbul.*

Ixocincla virescens, *Blyth, J. A. S. B.* xiv, p. 575 (1845).
Hypsipetes virescens, *Blyth, J. A. S. B.* xv, pp. 51, 370; *id. Cat.* p. 207.
Hypsipetes nicobariensis, *Moore in Horsf. & M. Cat.* i, p. 257 (1854); *Ball, S. F.* i, p. 70; *Hume, S. F.* ii, p. 223; *Hume & Dav. S. F.* vi, p. 298; *Hume, Cat.* no. 447 quat.
Hypsipetes virescens (*Blyth*), *Sharpe, Cat. B. M.* vi, p. 43.

*Coloration.* Head and nape dark brown; sides of the head grey; upper plumage olive-green; wings and tail hair-brown, margined or suffused externally with olive-green; chin, throat, and upper breast white, faintly streaked with pale brown, grey, or pale yellow; remaining lower parts and under wing-coverts pale primrose-yellow slightly mottled with white, the under tail-coverts with brownish centres.

Legs and feet dark horny, greenish brown, or greenish plumbeous; bill deep horny brown; lower mandible and edge of upper dull yellow; iris brown (*Hume*).

Length about 9; tail 3·8; wing 4; tarsus ·75; bill from gape 1·1.

*Distribution.* The Nicobar islands of Teressa, Bompoka, Tillangchong, Camorta, Nancowry, Trinkut, Katchall, and Pilu Milu.

*Habits, &c.* Davison remarks:—"Occurs only at the Nicobars, where it is comparatively common; it keeps to the forest generally, but is also found in gardens, in the secondary jungle, and not unfrequently in places where there are only a few scattered bushes; it usually is seen singly, in pairs, or in small parties of five or six; but I have on several occasions seen them in flocks of nearly a hundred. They have a chattering note, very similar to the other *Hypsipetes*, and when they are in flocks they make nearly as much noise as a flock of Mynahs settling for the night. They breed at the Nicobars; I shot very young birds in February; but did not succeed in finding any nests."

## Genus **PYCNONOTUS**, Kuhl, 1826.

The Bulbuls which I place in this genus are birds of small size, and may be termed crestless. With the exception of *P. blanfordi*, which is occasionally seen in compounds and gardens, none of them are familiar birds as is the case with *Molpastes* and *Otocompsa*. They are chiefly denizens of the jungle and forest.

In *Pycnonotus* the bill is of small size, and the nuchal hairs are obsolete or small. Many of the species are of dull colour, but a few are of brilliant plumage. They are solitary in their habits and very arboreal, and it is a rare occurrence to see any of them on the ground.

Among the Bulbuls of this genus which may hereafter be found in British territory may be mentioned *P. xanthorrhous*, a species which Anderson obtained at Manwyne, Momein, and Shitee hill, to the east of Bhámo in the Kakhyen hills and on the borders of China. This bird is found throughout Southern China. I append a description of it *.

### *Key to the Species.*

*a*. Throat white .......................... *P. analis*, p. 287.
*b*. Throat streaked with bright yellow.
  *a'*. Anterior half of crown of a different colour to the hinder half and nape .......... *P. finlaysoni*, p. 287.
  *b'*. The whole crown and nape of the same colour .......................... *P. davisoni*, p. 288.
*c*. Throat yellow.
  *c'*. Crown black .......................... *P. melanicterus*, p. 288.
  *d'*. Crown yellow .......................... *P. xantholæmus*, p. 289.
*d*. Throat ruby-red .......................... *P. gularis*, p. 289.
*e*. Throat slaty blue .......................... *P. cyaniventris*, p. 290.
*f*. Throat brown or grey.
  *e'*. Under tail-coverts yellow .............. *P. luteolus*, p. 290.
  *f'*. Under tail-coverts brown or buff.
    *a''*. Ear-coverts entirely silvery white .... *P. blanfordi*, p. 291.
    *b''*. Ear-coverts brown with silvery white shafts .......................... *P. plumosus*, p. 292.
    *c''*. Ear-coverts like the crown.
      *a'''*. Wing more than 3 inches ........ *P. simplex*, p. 292.
      *b'''*. Wing less than 3 inches.......... *P. pusillus*, p. 293.

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* PYCNONOTUS XANTHORRHOUS, *Anderson, Proc. A. S. Beng.* 1869, p. 265; *id. P. Z. S.* 1871, p. 214; *id. Yunnan Exped., Aves*, p. 658, pl. li; *Sharpe, Cat. B. M.* vi, p. 139.

*Coloration*. Forehead, crown, lores, a ring round the eye, and a narrow cheek-stripe extending to the end of the ear-coverts black; a small spot of deep red at the base of the lower mandible near the gape; ear-coverts glossy hair-brown; chin and throat pure white; upper plumage brown, the feathers with obsoletely paler edges; the wings and tail darker brown, the former margined with the colour of the back, the latter narrowly tipped with white; sides of the neck brown, meeting across the breast in a crescentic band; abdomen and vent whitish; sides of body and the thighs brown; under tail-coverts deep golden yellow; underside of shafts of tail-feathers white.

Bill black; feet blackish; iris brownish red (*Père David*).

Length about 8·5; tail 3·8; wing 3·6; tarsus ·9; bill from gape ·8.

Since the above was in type Count Salvadori has recorded the occurrence of this species in Karennee (Ann. Mus. Civ. Gen. (2) vii. p. 398 (1889)).

### 298. **Pycnonotus analis.** *The Yellow-vented Bulbul.*

Turdus analis, *Horsf. Trans. Linn. Soc.* xiii, p. 147 (1820).
Pycnonotus goiavier (*Scop.*), *Blyth, Cat.* p. 210; *Horsf. & M. Cat.* i, p. 242.
Otocompsa personata, *Davison, Hume, S. F.* i, p. 457 (1873); ii, p. 333.
Otocompsa analis (*Horsf.*), *Hume & Dav. S. F.* vi, p. 308; *Hume, Cat.* no. 452 sex.
Pycnonotus analis (*Horsf.*), *Sharpe, Cat. B. M.* vi, p. 140; *Oates, B. B.* i, p. 191; *id. in Hume's N. & E.* 2nd ed. i, p. 186 note.

*Coloration.* The whole upper plumage brown, darker on the head, and the feathers somewhat paler-edged; wings and tail brown, edged exteriorly with the colour of the back; a broad supercilium white; lores and feathers on the eyelids black; ear-coverts pale brown; cheeks, chin, and throat whitish; breast brown with pale edges; abdomen whity brown, the sides darker brown; under tail-coverts sulphur-yellow.

Legs, feet, claws, and bill black; iris wood-brown (*Hume & Davison*).

Length about 8; tail 3·2; wing 3·5; tarsus ·8; bill from gape ·8.

*Distribution.* Tenasserim, from Mergui southwards. The Malay peninsula, Sumatra, Java, Lombock, Borneo, Cochin China, and Siam.

*Habits, &c.* The nest of this Bulbul has not yet been taken in Burma. A nest found at Salang, further south, in February, was a cup made of dry leaves and twigs lined with grass. It was built in a bush about six feet from the ground. The eggs were pinkish marked with maroon and purple and measured about ·88 by ·63.

### 299. **Pycnonotus finlaysoni.** *Finlayson's Stripe-throated Bulbul.*

Pycnonotus finlaysoni, *Strickl. A. M. N. H.* (1) xiii, p. 411 (1844); *Blyth, Cat.* p. 210; *Horsf. & M. Cat.* i, p. 244; *Wald. P. Z. S.* 1866, p. 549; *Sharpe, Cat. B. M.* vi, p. 144; *Oates, B. B.* i, p. 193; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 598.
Ixus finlaysoni (*Strickl.*), *Hume, S. F.* iii, p. 301; *Hume & Dav. S. F.* vi, p. 307; *Hume, Cat.* no. 452 ter; *Oates in Hume's N. & E.* 2nd ed. i, p. 187.

*Coloration.* Forehead and head, as far back as the eyes, bright yellow, the feathers edged with ashy brown; lores black; above the lores a narrow orange line; cheeks, ear-coverts, throat, chin, and upper neck grey, with bright yellow streaks; crown and nape deep grey, the centres of the feathers paler; upper plumage and wing-coverts olive-green, the back washed with ashy; wings dark brown, broadly edged with olive-green on the outer webs; tail olive-green, brighter on the outer webs; breast, upper abdomen, and flanks dark ashy, the shafts paler; middle of abdomen yellowish grey; vent and under tail-coverts bright yellow; edge of wing, under wing-coverts, and axillaries yellow.

Bill bluish black, paler at the gape; mouth dark flesh-colour; iris pale brown; eyelids dark plumbeous; legs dusky plumbeous; claws dark brown.

Length 7·6; tail 3·3; wing 3·2; tarsus ·8; bill from gape ·85.

*Distribution.* The whole of Tenasserim east of the Sittoung river from Toungngoo to the extreme south. The Malay peninsula, Siam, and Cochin China.

*Habits, &c.* Breeds from February to May, constructing a cup-shaped nest of twigs, grass-roots, and fibres in a bush or sapling. The eggs, which appear to be always two in number, are pink, marked with maroon and purple. They measure about ·88 by ·65.

### 300. **Pycnonotus davisoni.** *Davison's Stripe-throated Bulbul.*

Ixus davisoni, *Hume, S. F.* iii, p. 301 (1875), iv, p. 498; *Armstrong, S. F.* iv, p. 324; *Oates, S. F.* vii, p. 47; *Hume, Cat.* no. 452 quat.; *Oates, S. F.* x, p. 209.
Ixus annectens, *Walden, A. M. N. H.* (4) xv, p. 401 (1875); *id. in Blyth's Birds Burm.* p. 134; *Wardlaw Ramsay, Ibis,* 1877, p. 466.
Pycnonotus davisoni (*Hume*), *Sharpe, Cat. B. M.* vi, p. 145; *Oates, B. B.* i, p. 194; *id. in Hume's N. & E.* 2nd ed. i, p. 188.

*Coloration.* Resembles *P. finlaysoni.* Differs in having the whole forehead, crown, nape, sides and back of neck greenish yellow mottled with grey, caused by the feathers being narrowly margined by this colour; the yellow streaks on the cheeks, ear-coverts, chin, throat, and upper neck in front shorter and less vivid in colour.

Iris pale yellow; bare ophthalmic skin and eyelids dark purplish; mouth flesh-colour; bill dark brown; legs dark plumbeous; claws horn-colour.

Length nearly 8; tail 3·2; wing 3·2; tarsus ·8; bill from gape ·85.

*Distribution.* The southern half of Pegu west of the Sittoung river, and from the sea to about the latitude of Pegu town; Arrakan, whence Blyth recorded this species under the name of *P. finlaysoni*, and where Armstrong procured it at Kyoukhpyoo and the Borongo Islands near Akyab.

*Habits, &c.* I discovered two nests of this Bulbul in June near Pegu town. The nest is a flimsy cup made of the stems of small plants and grass, and is placed in a bush or creeper near the ground. The eggs, two in number, are pinkish white, marked with reddish and purple; they measure about ·86 by ·63.

### 301. **Pycnonotus melanicterus.** *The Black-capped Bulbul.*

Muscicapa melanictera, *Gm. S. N.* i, p. 941 (1788).
Ægithina atricapilla, *Vieill. Nouv. Dict. d'Hist. Nat.* i, p. 176 (1816).
Pycnonotus atricapillus (*Vieill.*), *Blyth, Cat.* p. 211.
Rubigula melanictera (*Gm.*), *Wald. Ibis,* 1866, p. 321; *Blyth, Ibis,* 1867, p. 304; *Holdsworth, P. Z. S.* 1872, p. 451; *Legge, S. F.* iii, p. 368; *id. Birds Ceyl.* p. 477; *Hume, S. F.* vii, p. 387; *id. Cat.* no. 455 bis; *Sharpe, Cat. B. M.* vi, p. 168.

Pycnonotus melanicterus (*Gm.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 188.

*Ka-Karulla*, Ceyl.

*Coloration.* Forehead, crown, nape, and sides of the neck black; upper plumage and wing-coverts olive-green; wings brown, the outer webs olive-green; tail dark brown, the basal half washed with green, and all the feathers, except the middle pair, tipped with white; whole lower plumage bright yellow, washed with olive on the sides of the breast and body; under wing-coverts and edge of wing yellow.

Iris dull red; bill black; legs and feet blackish (*Legge*).

Length about 6·5; tail 2·8; wing 2·8; tarsus ·6; bill from gape ·8.

*Distribution.* Ceylon, where this species is found up to 5000 feet.

*Habits, &c.* A nest found in April is described as a loose structure of grass and bents built on the top of a stump. The eggs are reddish white marked with reddish brown and bluish grey, and measure about ·79 by ·58.

### 302. **Pycnonotus xantholæmus.** *The Yellow-throated Bulbul.*

Brachypus xantholæmus, *Jerd. Madr. Journ. L. S.* xiii, pt. 2, p. 122 (1844).

Pycnonotus xantholæmus (*Jerd.*), *Jerdon, Ill. Ind. Orn.* pl. xxxv; *Blyth, Cat.* p. 209; *Horsf. & M. Cat.* i, p. 246; *Sharpe, Cat. B. M.* vi, p. 146.

Ixos xantholæmus (*Jerd.*), *Jerd. B. I.* ii, p. 85; *Hume, Cat.* no. 453.

*The Yellow-throated Bush Bulbul*, Jerd.; *Kondapoda-pigli*, Tel.

*Coloration.* Forehead, crown, and sides of the head yellowish green, the feathers near the nostrils dusky; chin and throat bright yellow; upper plumage grey, the upper tail-coverts tinged with green; wings and tail brown, the outer webs washed with yellowish green, and the tail-feathers tipped with yellowish white; breast and sides of the neck and of the body grey, turning to whitish on the abdomen; under tail-coverts and edge of wing bright yellow; thighs dull yellow; under wing-coverts pale yellow.

Bill and legs black; iris red (*Jerdon*).

Length about 7·5; tail 3·6; wing 3·3; tarsus ·8; bill from gape ·8.

*Distribution.* I have been able to examine only four specimens of this rare Bulbul. One is labelled "west of Nellore," two "Eastern Ghâts," and the other "Madras." Jerdon, the discoverer of this species, states that it is only met with in the Eastern Ghâts west of Nellore.

### 303. **Pycnonotus gularis.** *The Ruby-throated Bulbul.*

Brachypus gularis, *Gould, P. Z. S.* 1835, p. 186; *Wald. Ibis*, 1866, p. 423.

Brachypus rubineus, *Jerdon, Madr. Journ. L. S.* x, p. 246 (1839); *id. Illustr. Ind. Orn.* pl. xxxvii.

Pycnonotus gularis (*Gould*), *Blyth, Cat.* p. 211; *Horsf. & M. Cat.* i, p. 245.

Rubigula gularis (*Gould*), *Jerd. B. I.* ii, p. 87; *Hume, Cat.* no. 455;

*Sharpe, Cat. B. M.* vi, p. 167; *Butler, S. F.* ix, p. 402; *Davison, S. F.* x, p. 384; *Macgregor, S. F.* x, p. 439; *Barnes, Birds Bom.* p. 186.

*Coloration.* Forehead, crown, nape, sides of the head, and the extreme point of the chin black; throat ruby-red, the feathers long and rather bristly; upper plumage yellowish green; wings brown, the outer webs yellowish green; tail the same; lower plumage bright yellow; under wing-coverts and edge of wing yellow.

The nestling has the throat brownish, but it acquires the red feathers at a very early age.

Iris pale cream; bill and claws black; legs and feet blackish plumbeous (*Davison*); iris light yellow (*Jerdon*).

Length nearly 7; tail 3; wing 3; tarsus ·55; bill from gape ·7.

*Distribution.* The western coast of India from Travancore up to about the latitude of Belgaum. This species appears to be rare and to frequent thick forest.

### 304. **Pycnonotus cyaniventris.** *The Blue-bellied Bulbul.*

Pycnonotus cyaniventris, *Blyth, J. A. S. B.* xi, p. 792 (1841); *id. Cat.* p. 211.
Ixodia cyaniventris (*Bl.*), *Blyth, J. A. S. B.* xiv. p. 578.
Ixidia cyaniventris (*Bl.*), *Horsf. & M. Cat.* i, p. 245; *Hume & Dav. S. F.* vi, p. 320; *Hume, Cat.* no. 457 quint.
Rubigula cyaniventris (*Bl.*), *Sharpe, Cat. B. M.* vi, p. 169; *Oates, B. B.* i, p. 200.

*Coloration.* The whole head and lower plumage deep slaty blue; lores black; forehead and a streak over the lores paler blue; under tail-coverts bright yellow; upper plumage and wing-coverts bright greenish yellow; tail dark brown, the outer webs greenish yellow nearly up to the tips; quills dark brown, all but the first two primaries broadly edged with greenish yellow; under wing-coverts and edge of wing pale yellow.

Legs and feet very dark plumbeous; claws horny brown, sometimes almost black; bill black; iris dark brown, dark plumbeous slate, and grey-brown (*Hume & Davison*).

Length nearly 6·5; tail 2·6; wing 3; tarsus ·6; bill from gape ·75.

*Distribution.* The extreme southern point of Tenasserim. This Bulbul is found throughout the Malay peninsula and Sumatra.

### 305. **Pycnonotus luteolus.** *The White-browed Bulbul.*

Hæmatornis luteolus, *Lesson, Rev. Zool.* 1840, p. 354.
Pycnonotus flavirictus, *Strickl. A. M. N. H.* (1) xiii, p. 413 (1844); *Blyth, Cat.* p. 210.
Pycnonotus luteolus (*Less.*), *Blyth, Cat.*, App. p. xxii; *Horsf. & M. Cat.* i, p. 243; *Sharpe, Cat. B. M.* vi, p. 143; *Oates in Hume's N. & E.* 2nd ed. i, p. 189.

Ixos luteolus (*Less.*), *Jerd. B. I.* ii, p. 84; *Hume, N. & E.* p. 283; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 178; *Ball, S. F.* ii, p. 410, iv, p. 235; *Fairbank, S. F.* iv, p. 258, v, p. 405; *Ball, S. F.* vii, p. 214; *Hume, Cat.* no. 452; *Vidal, S. F.* ix, p. 64; *Butler, S. F.* ix, p. 402; *Davison, S. F.* x, p. 381; *Barnes, Birds Bom.* p. 185; *Littledale, Journ. Bom. N. H. Soc.* i, p. 198.

*The White-browed Bush Bulbul*, Jerd.; *Poda-pigli*, Tel.; *Guluguluwa*, Ceyl.

*Coloration.* Upper plumage dull olive-green, tinged with ashy on the head and with fulvous on the rump and upper tail-coverts; wings and tail brown, washed with green on the outer webs; front of forehead, a broad streak from the nostril over the eye and partially over the ear-coverts, and an indistinct ring round the eye white; lores mingled white and black; a stripe from the base of the lower mandible and also the point of the chin yellow; lower plumage ashy, tinged and somewhat striped with pale yellow, the breast washed with brown; vent and under tail-coverts pale yellow; under wing-coverts and edge of wing yellow.

Bill blackish; legs dark plumbeous; iris blood-red (*Jerdon*).

Length nearly 8; tail 3·3; wing 3·3; tarsus 9; bill from gape ·95.

*Distribution.* The peninsula of India, from Baroda on the west and Midnapore on the east down to Cape Comorin; Ceylon. Rare or absent on the Deccan tableland and throughout the greater part of the Central Provinces.

*Habits, &c.* Nests of this Bulbul have been found near Bombay in June and September. The nest is a loose structure of twigs lined with grass built in a bush or low tree. The eggs are pinkish white marked with reddish brown, and measure about ·95 by ·63.

### 306. **Pycnonotus blanfordi.** *Blanford's Bulbul.*

Pycnonotus blanfordi, *Jerdon, Ibis*, 1862, p. 20; *Anders. Yunnan Exped., Aves*, p. 659; *Sharpe, Cat. B. M.* vi, p. 151; *Oates, B. B.* i, p. 195; *id. in Hume's N. & E.* 2nd ed. i. p. 190.

Pycnonotus familiaris, *Blyth, J. A. S. B.* xxxi, p. 343 (1862).

Microtarsus blanfordi (*Jerd.*), *Hume, S. F.* iii, p. 125.

Ixus blanfordi (*Jerd.*), *Blyth, Birds Burm.* p. 134; *Oates, S. F.* v, p. 156; *Wardlaw Ramsay, Ibis*, 1877, p. 466; *Hume, Cat.* no. 452 quint.; *Oates, S. F.* x, p. 210.

*Coloration.* Upper plumage earthy brown with an olive tinge, washed with fulvous on the rump and upper tail-coverts; the centres of the feathers of the head deeper brown; wings and tail brown, the outer webs of the same colour as the back; lores, cheeks, and chin dull white tinged with ashy; ear-coverts silvery white; lower plumage pale brown on the breast, streaked and mottled with pale fulvous, entirely fulvous on the abdomen and under tail-coverts; under wing-coverts and edge of wing yellowish fulvous.

The iris varies from yellowish brown to red; eyelids plumbeous;

bill brown, paler at base of lower mandible and gape; mouth flesh-colour; legs plumbeous; claws horn-colour.

Length nearly 8; tail 3·2; wing 3·2; tarsus ·85; bill from gape ·85.

*Distribution.* Pegu, from near Rangoon northwards, extending through Upper Burma along the valley of the Irrawaddy to Bhámo. The lateral limits are undefined at present. This is a bird of the plains and lower hills only.

*Habits, &c.* Breeds from April to June or July, constructing a neat cup-like nest of herbaceous stalks and grass with a few dead leaves in a bush or low tree. The eggs, three in number, are pink marked with purplish red, and measure ·82 by ·6.

This Bulbul has a very harsh note when disturbed, at which time it erects the short feathers of its head.

### 307. **Pycnonotus plumosus.** *The Large Olive Bulbul.*

Pycnonotus plumosus, *Blyth, J. A. S. B.* xiv, p. 567 (1845); *id. Cat.* p. 210; *Sharpe, Cat. B. M.* vi, p. 152; *Oates, B. B.* i, p. 196; *id. in Hume's N. & E.* 2nd ed. i, p. 191, note.

Brachypus plumosus (*Blyth*), *Tweedd. Ibis*, 1877, p. 306.

Ixus plumosus (*Blyth*), *Hume & Dav. S. F.* vi, p. 309; *Hume, Cat.* no. 452 sept.

*Coloration.* Forehead and crown dark greyish brown, each feather margined with olive-green; upper plumage olive-green; wings and tail dark brown, the outer webs washed with bright olive-green; lores dark brown; cheeks and chin dull whity brown; ear-coverts dark brown with white shafts; lower plumage ashy brown, slightly mottled and streaked with dull ochraceous; under wing- and tail-coverts and edge of wing brighter ochraceous.

Legs and feet reddish brown, darker in some, paler in others; bill almost black; iris varying from burnt sienna-brown to dark cinnabar-red (*Hume & Davison*).

Length nearly 8; tail 3·3; wing 3·5; tarsus ·85; bill from gape ·85.

*Distribution.* The southern portion of Tenasserim as far north as Mergui. The Malay peninsula, Sumatra, Borneo, and Cochin China.

*Habits, &c.* A nest found by Davison at Kossoom in the Malay peninsula was of the ordinary Bulbul type, and placed in a dense clump of cane near the ground. The eggs are pink marked with red and purple, and measure about ·9 by ·66.

### 308. **Pycnonotus simplex.** *Moore's Olive Bulbul.*

Pycnonotus simplex, *Less. Rev. Zool.* 1839, p. 167; *Sharpe, Cat. B. M.* vi, p. 153, pl. ix; *Oates, B. B.* i, p. 196; *id. in Hume's N. & E.* 2nd ed. i, p. 192, note.

Pycnonotus brunneus, *Blyth, J. A. S. B.* xiv, p. 568 (1845); *id. Cat.* p. 210.

Microtarsus olivaceus, *Moore in Horsf. & M. Cat.* i, p. 249 (1854).
Ixus brunneus (*Bl.*), *Hume & Dav. S. F.* vi, p. 312; *Hume, Cat.* no. 452 oct.

*Coloration.* Upper plumage brown with a greenish tinge, and slightly fulvous on the rump and upper tail-coverts; wings and tail brown, the outer webs washed with the colour of the back; the whole lower plumage buffy brown, slightly streaked darker in places with ochraceous; under tail-coverts dark ochraceous with paler edges; under wing-coverts and edge of wing ochraceous yellow.

Legs and feet fleshy or reddish brown, in some lighter, in some darker; the upper mandible dark horny brown; lower mandible somewhat paler; the iris varies—orange-red, pale red, whity pink (*Hume & Davison*).

Length about 7; tail 3·2; wing 3·2; tarsus ·7; bill from gape ·8.

*Distribution.* Southern Tenasserim up to about Mergui. The Malay peninsula, Sumatra, Java, and Borneo.

*Habits, &c.* A nest found by Davison at Klang, in the Malay peninsula, was placed in a sapling about six feet from the ground, and contained two eggs, which measured ·89 by ·62.

### 309. **Pycnonotus pusillus.** *The Small Olive Bulbul.*

Pycnonotus pusillus, *Salvadori, Ucc. Born.* p. 200 (1874); *Sharpe, Cat. B. M.* vi, p. 155, pl. x (nec *Blyth*).
Ixus pusillus (*Salvad.*), *Hume & Dav. S. F.* vi, p. 312; *Hume, Cat.* no. 452 nov.
Pycnonotus salvadorii, *Sharpe, Cat. B. M.* vi, App. p. 401 (1881); *Oates, B. B.* i, p. 197.

*Coloration.* The whole upper plumage and wing-coverts olive-brown, tinged with rufescent on the rump and upper tail-coverts; tail rufescent; wings brown, the outer webs washed with the colour of the back; lores and sides of the head ashy brown; chin and throat ashy white; breast and sides of the body ashy brown washed with fulvous; abdomen, vent, and under tail-coverts dusky yellow; under wing-coverts and axillaries pale ochraceous yellow.

In life this bird has a vivid orange ring round the eye, but no trace of this is discernible in dried skins.

Legs, feet, and claws pale reddish horny; iris crimson; bill black; gape and base of lower mandible, shelf above nostrils, and ophthalmic ring vivid orange-yellow (*Hume & Davison*).

Length about 6·5; tail 3; wing 2·9; tarsus ·6; bill from gape ·75.

*Distribution.* The extreme southern point of Tenasserim; the Malay peninsula, Sumatra, and Borneo.

## Genus **MICROPUS**, Swains., 1837.

The genus *Micropus* may be recognized by its very ample and lengthened upper tail-coverts, rounded tail, and the extraordinary development of the feathers of the lower back and rump, which are moreover barred with black: in this latter respect *Micropus* shows great affinities for *Pinarocichla.*

In *Micropus* the feathers of the head are exceedingly short and glossy. The bill is about half the length of the head, and the rictal bristles are well developed. The plumage of all the species is very pleasing. They inhabit forest country or well-wooded tracts, and they are generally abundant wherever they are found. Nothing whatever is known regarding their nests and eggs.

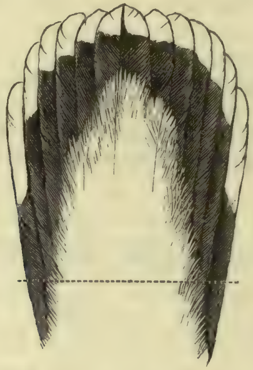

Fig. 91.—Tail of *M. melanocephalus.*

*Key to the Species.*

*a.* Head entirely black.
  *a'.* Lower plumage yellow............ *M. melanocephalus,* p. 294.
  *b'.* Lower plumage bluish grey........ *M. cinereiventris,* p. 295.
*b.* Crown of head dusky or bluish grey, not black.
  *c'.* Upper tail-coverts yellow.......... *M. fusciflavescens,* p. 295.
  *d'.* Upper tail-coverts bluish grey...... *M. phæocephalus,* p. 296.

### 310. **Micropus melanocephalus.** *The Black-headed Bulbul.*

Lanius melanocephalus, *Gm. S. N.* i, p. 309 (1788).
Brachypodius melanocephalus (*Gm.*), *Blyth, Cat.* p. 211; *Horsf. & M. Cat.* i, p. 248; *Blyth, Birds Burm.* p. 136; *Armstrong, S. F.* iv, p. 324; *Hume & Dav. S. F.* vi, p. 318; *Hume, Cat.* no. 457 bis; *Oates, S. F.* x, p. 210.
Micropus melanocephalus (*Gm.*), *Sharpe, Cat. B. M.* vi, p. 65; *Oates, B. B.* i, p. 181.

*Coloration.* The whole head as far back as the nape and the lower edge of the throat glossy black; with this exception the whole plumage is olive-yellow, brighter and more yellow on the lower part of the abdomen, the tail-coverts (both upper and lower), and the tips of the rump-feathers, which latter are also barred with black; these bars are only visible when the feathers are disarranged, merely a few black patches being evident at other times; primaries and their coverts entirely black; secondaries black, edged externally with olive-yellow; tertiaries black on their inner and olive-green on their outer webs; tail olive-green for about two thirds of its length, then broadly black and finally broadly tipped with bright yellow.

Bill black; mouth pale blue; iris blue; legs plumbeous.

Length about 7; tail 3·3; wing 3·3; tarsus ·5; bill from gape ·8.

*Distribution.* Dacca; Tipperah; Arrakan; the southern portion of Pegu; Karennee; the whole of Tenasserim except the highest hills.

This bird extends down the Malay peninsula to Sumatra, Java, Borneo, and Palawan.

### 311. **Micropus cinereiventris.** *The Grey-bellied Bulbul.*

Brachypodius cinereoventris, *Blyth, J. A. S. B.* xiv, p. 576 (1845); *Wald. in Blyth's Birds Burm.* p. 136; *Hume & Dav. S. F.* vi, p. 319; *Hume, Cat.* no. 457 quat.; *Oates, S. F.* x, p. 210; *Hume, S. F.* xi, p. 180.

Micropus cinereiventris (*Bl.*), *Sharpe, Cat. B. M.* vi, p. 67; *Oates, B. B.* i, p. 182.

*Coloration.* Resembles *M. melanocephalus.* Differs in having the breast, upper part of abdomen, hind neck, and sometimes the upper part of the back bluish grey, and in having the primaries narrowly edged with olive-green on the outer webs.

Iris blue; eyelids grey; bill black; mouth dusky fleshy; legs and claws brownish black.

Length about 7; tail 2·9; wing 3·15; tarsus ·6; bill from gape ·85.

*Distribution.* Cachar; Tipperah; Dacca; Toungngoo; southern Pegu about Rangoon and the valley of the Pegu river. This Bulbul has also been observed at Tonka, Salang, and Malacca in the Malay peninsula.

### 312. **Micropus fusciflavescens.** *The Andaman Black-headed Bulbul.*

Brachypodius melanocephalus (*Gm.*), *apud Ball, J. A. S. B.* xli, pt. ii, p. 284; *id. S. F.* i, p. 71.

Brachypodius fuscoflavescens, *Hume, S. F.* i, p. 297 (1873); *Wald. Ibis,* 1873, p. 306; *Hume, S. F.* ii, p. 224; *id. Cat.* no. 457 ter.

Micropus fusciflavescens (*Hume*), *Sharpe, Cat. B. M.* vi, p. 66.

*Coloration.* Resembles *M. melanocephalus.* Differs in having the whole head dusky olive-green, the chin and central portion of the throat only being a dark glossy brown or black; in the abdomen and under tail-coverts being very bright yellow; in the reduced size of the subterminal black bars on the tail-feathers, and the corresponding expansion of the olive-green on them; and in the primaries, except the first two, being edged with olive-green.

Iris bluish white; bill bluish slate (*Wardlaw Ramsay*). Iris pale blue; bill nearly black; legs and feet plumbeous (*Hume*).

Length about 7; tail 3; wing 3; tarsus ·6; bill from gape ·85.

*Distribution.* The South Andaman Island, where this bird appears to be abundant. I have seen specimens procured at Port Blair, Port Mouat, and Aberdeen.

### 313. **Micropus phæocephalus.** *The Grey-headed Bulbul.*

Brachypus poiocephalus, *Jerd. Madr. Journ. L. S.* x, p. 246 (1839).
Brachypodius poiocephalus (*Jerd.*), *Blyth, Cat.* p. 212; *Jerd. B. I.* ii, p. 89; *Hume, Cat.* no. 457; *Butler, S. F.* ix, p. 402; *Davison, S. F.* x, p. 384; *Barnes, Birds Bom.* p. 186.
Micropus phæocephalus (*Jerd.*), *Sharpe, Cat. B. M.* vi, p. 68.

*Coloration.* Forehead olive-yellow; chin blackish; cheeks greyish yellow; remainder of head clear bluish grey; upper side of neck, back, and scapulars olive-green; rump-feathers black with broad pale yellow tips; upper tail-coverts and the four middle tail-feathers bluish grey with dark shafts, the others black, broadly edged on both webs and tipped with bluish grey, the whole suffused with olive-green on the basal two thirds of their length; wings black, all the quills and coverts margined with olive-green, the outer webs of the tertiaries being entirely of this colour; breast, abdomen, and flanks oil-yellow; under tail-coverts bluish grey.

Iris blue-grey; bill pale green; legs and feet fleshy tinged orange; claws dusky (*Davison*).

Length about 7; tail 2·9; wing 2·9; tarsus ·6; bill from gape ·75.

*Distribution.* The western coast of India from about Anjango in Travancore to the vicinity of Belgaum. This appears to be a rare bird. Jerdon states that it is found from near the sea-level to about 2000 feet of elevation. Davison met with it near Coonoor and in the Wynaad, and Butler records it from the forests south-west of Belgaum.

## Genus **KELAARTIA**, Blyth, *fide* Jerdon, 1863.

The single species of *Kelaartia* is peculiar to Ceylon. It is characterized by the pointed feathers constituting the supercilium, and by the rounded feathers on the crown, the two forming a strong contrast.

The tarsus is in this genus rather longer than is usual among the Bulbuls, but it does not exceed in length the middle toe and claw.

The Yellow-eared Bulbul appears to be a denizen of the forests of the hilly parts of the island.

### 314. **Kelaartia penicillata.** *The Yellow-eared Bulbul.*

Pycnonotus penicillatus, *Blyth, J. A. S. B.* xx, p. 178 (1851).
Kelaartia penicillata (*Blyth*), *Jerd. B. I.* ii, p. 86; *Holdsw. P. Z. S.* 1872, p. 450; *Legge, S. F.* iv, p. 245; *id. Birds Ceyl.* p. 480, pl. 21, fig. 1; *Hume, Cat.* no. 454; *Sharpe, Cat. B. M.* vi, p. 162.

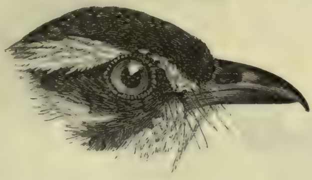

Fig. 92.—Head of *K. penicillata.*

*Coloration.* Forehead and crown dark brown or blackish, each feather very narrowly edged with ashy; a narrow white line from the nostril to the upper part of the eye; a broad yellow streak from the upper part of the eye to the nape; chin and upper part of cheeks white; lores, lower part of cheeks, and ear-coverts black, the latter part with a lengthened streak of yellow down the middle; a large slaty-blue spot on the side of the neck, touching the ear-coverts; upper plumage olive-green; wings and tail dark brown, the outer webs washed with olive-green; the whole lower plumage, except the chin, deep yellow, washed with olive on the breast and sides of the body; under wing-coverts and edge of wing yellow.

Iris red mingled with brown, or red deepening to brown next the pupil; tarsi and feet dark leaden blue; bill black (*Legge*).

Length about 7·5; tail 3·2; wing 3·2; tarsus ·8; bill from gape ·85.

*Distribution.* Ceylon, where this bird is found up to about 4000 feet. Jerdon was under the impression that he procured this species in Mysore, but its occurrence in Southern India has not been confirmed.

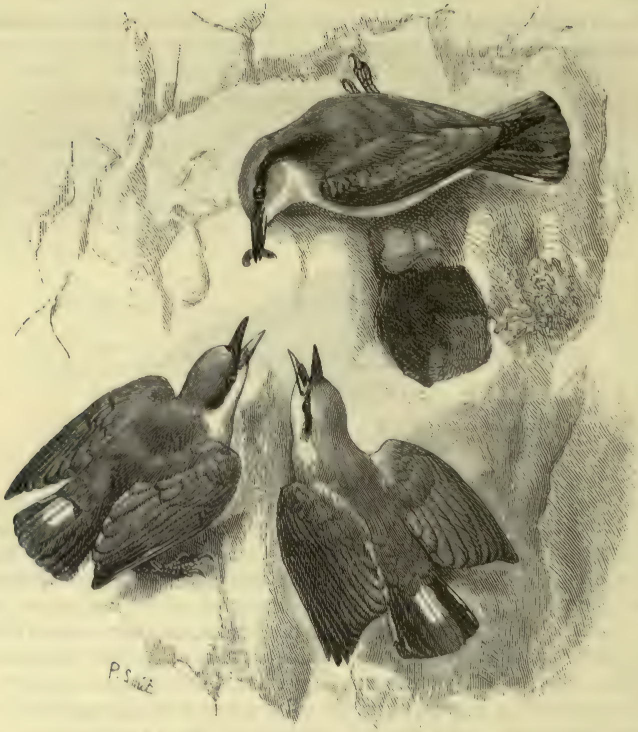

Fig. 93.—*Sitta himalayensis.*

## Family SITTIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles smooth, or the upper one simply notched; hinder aspect of tarsus smooth, composed of two entire longitudinal laminæ; wing with ten primaries; tongue non-tubular; nostrils clear of the line of forehead, the lower edge of the nostril nearer to the commissure than the upper edge is to the culmen; plumage of the nestling resembling that of the adult female, but paler; nostrils overhung by some hairs; rictal bristles present; rectrices twelve; hind toe and inner front toe very unequal in length; sexes generally different in colour; an autumn moult only.

The Nuthatches are a well-defined group of small climbing birds allied in many respects to the *Crateropodidæ*. The habit of climbing, however, has caused the hind toe to be greatly developed and the inner front toe to be dwarfed.

In the *Sittidæ* the bill is about as long as the head, stout and straight. The nostrils are covered with some hairs, and the rictal bristles are strong. The wing is rather pointed, and the first primary is always less than half the length of the second. The tail is short and square or very slightly rounded.

The Nuthatches feed on insects and hard fruits such as nuts. They nest in the holes of trees or rocks, and they generally employ mud to reduce the size of the entrance to their nest. They are non-migratory, and for the most part of limited distribution. Eleven species are found in India.

## Genus **SITTA**, Linn., 1766.

The characters of this, the only genus of Nuthatches represented in India, are the same as those of the family.

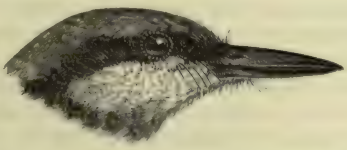

Fig. 94.—Head of *S. cinnamomeiventris*.

### *Key to the Species.*

*a*. Upper plumage uniform bluish.

*a′*. Middle pair of tail-feathers white at base .......................... *S. himalayensis*, p. 300.

*b′*. Middle pair of tail-feathers uniform, without any white.

*a″*. Lateral tail-feathers with white spots.

*a‴*. Under tail-coverts white, tipped with chestnut.

$a^4$. Lower plumage chestnut.

$a^5$. The chestnut of the lower plumage of uniform colour from throat to vent ...... *S. cinnamomeiventris*, [p. 301.

$b^5$. The chestnut of the lower parts paler on the throat and breast than on the abdomen. *S. neglecta*, p. 301.

$b^4$. Lower plumage grey.......... *S. nagaensis*, p. 302.

*b‴*. Under tail-coverts chestnut, tipped with white .................. *S. magna*, p. 303.

*c‴*. Under tail-coverts chestnut, centred with ashy; no white.

$c^4$. Lower plumage paler; size large, wing 3·3 .................. *S. kashmirensis*, p. 303.

$d^4$. Lower plumage darker; size small, wing under 3 ........ *S. castaneiventris*, p. 304.
*b″*. Lateral tail-feathers without white spots; marked with rufous ...... *S. tephronota*, p. 305.
*b*. Upper plumage slaty blue; crown black.. *S. leucopsis*, p. 306.
*c*. Crown and back black, streaked with brilliant blue ..... .................... *S. formosa*, p. 306.
*d*. Upper plumage uniform purplish blue; forehead black ...................... *S. frontalis*, p. 307.

### 315. **Sitta himalayensis.** *The White-tailed Nuthatch.*

Sitta himalayensis, *Jard. & Selby, Ill. Orn.* iii, pl. 144 (1835); *Horsf. & M. Cat.* ii, p. 720; *Jerd. B. I.* i, p. 385; *Blanf. J. A. S. B.* xli, pt. ii, p. 56; *Hume, N. & E.* p. 161; *Hume, Cat.* no. 248; *Scully, S. F.* viii, p. 262; *Gadow, Cat. B. M.* viii, p. 349; *Oates in Hume's N. & E.* 2nd ed. i, p. 192.
Sitta nipalensis, *Hodgs. J. A. S. B.* v, p. 779.
Sitta himalayana (*Jard. & Selby*), *Blyth, Cat.* p. 190.

*Siddyi-phip*, Lepch.

*Coloration. Male.* The forehead, lores, and a streak behind the eye, produced down the side of the neck to the shoulders, black; an indistinct eyebrow fulvous-white; upper plumage and wing-coverts dark slaty blue, somewhat paler on the head; primaries and secondaries dark brown, edged with slaty blue; tertiaries wholly of this colour; middle pair of tail-feathers slaty blue, the basal half of the inner web and a band next the shaft on the outer web white; the next two pairs wholly black; the next black, with an ashy tip; the next black, with an oblique white band and an ashy tip; the outermost similar, but with more white; sides of the face below the black streak and the chin pale fulvous; the lower plumage from the chin downwards chestnut, gradually getting darker and becoming rich chestnut on the flanks and under tail-coverts; under wing-coverts black, followed by a white patch on the primaries visible only from below.

*Female.* Resembles the male, but is somewhat paler beneath.

Legs and feet olive-brown; soles olive-yellow; iris pale brown; bill black, the gape and part of the lower mandible bluish white (*Hume*).

Length nearly 5; tail 1·5; wing 2·9; tarsus ·7; bill from gape ·75.

*Distribution.* Throughout the Himalayas from Kangra to Bhutan at elevations of from 5000 to about 10,000 feet, occasionally 11,000 feet, at which altitude Blanford procured a specimen in Sikhim. Godwin-Austen also procured this species at Aimul in the Manipur hills.

*Habits, &c.* Breeds in the Himalayas from April to June, making a nest of moss in a hole of a tree at no great height from the ground, and laying five or six eggs, which are white marked with red, and measure ·72 by ·55.

### 316. **Sitta cinnamomeiventris.** *The Cinnamon-bellied Nuthatch.*

Sitta cinnamoventris, *Blyth, J. A. S. B.* xi, p. 459; *id. Cat.* p. 189; *Horsf. & M. Cat.* ii, p. 722.

Sitta cinnamomeoventris, *Jerd. B. I.* i, p. 387; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 99, xlv, pt. ii, p. 71; *Hume, Cat.* no. 251; *Gadow, Cat. B. M.* viii, p. 351; *Scully, S. F.* viii, p. 263; *Hume, S. F.* xi, p. 86; *Oates in Hume's N. & E.* 2nd ed. i, p. 193.

*Sisi*, Hind.; *Sidhyi-phip*, Lepch.

*Coloration. Male.* The lores, cheeks, ear-coverts, and chin white, delicately barred with brown; a broad black band from the nostrils through the eyes to the shoulders; upper plumage and wing-coverts ashy blue; quills black edged with ashy blue, the edgings on the primaries being confined to the median part of the web; the secondaries more broadly margined, the tertiaries almost wholly ashy blue; middle tail-feathers ashy blue, the next two black, edged and tipped with ashy blue, the others with a subterminal white patch on the inner webs, and generally with a white band on the outer web of the outermost; sides of neck and the lower plumage intensely deep cinnamon-chestnut; under tail-coverts white, narrowly tipped with chestnut, the bases of the feathers ashy; under wing-coverts black, followed by a white patch at the base of the primaries only visible from below.

*Female.* Similar to the male, except that the lower plumage is dull pale chestnut.

Bill black; base of lower mandible and of culmen bluish grey-horny; iris hazel-brown; feet dingy plumbeous (*Scully*).

Length about 6; tail 1·8; wing 3·2; tarsus ·7; bill from gape 1.

*Distribution.* Throughout the Himalayas from Murree to Dibrugarh at moderate altitudes. Jerdon found this species in Sikhim from 2000 to 6000 feet; Scully states that it is common in the central woods of the Nepal valley, and Brooks says that in the lower hills between Mussooree and Gangotri it is the prevailing Nuthatch. Godwin-Austen procured it in the Khási hills, Hume on the Eastern hills of Manipur, and my men got it at Bhámo in Upper Burma.

*Habits, &c.* Gammie found the nest in Sikhim at 2000 feet elevation. It was in a hole of a decaying bamboo about twenty feet from the ground, and contained four eggs, which were not preserved. The joint of the bamboo which contained the nest was filled up with alternate layers of green moss and bark. The nest, which was placed on the top of this, was a small pad composed of fine moss and fur mixed with a few feathers and the wings of insects.

### 317. **Sitta neglecta.** *The Burmese Nuthatch.*

Sitta neglecta, *Wald. A. M. N. H.* (4) v, p. 218 (1870); *Hume, S. F.* iii, p. 87; *Hume & Dav. S. F.* vi, p. 201; *Hume, Cat.* no. 250 bis;

*Bingham, S. F.* ix, p. 171; *Gadow, Cat. B. M.* viii, p. 349; *Oates, B. B.* i, p. 131; *id. in Hume's N. & E.* 2nd ed. i, p. 193.

*Coloration.* Similar to *Sitta cinnamomeiventris.* Differs in having the throat and breast much paler than the abdomen and not concolorous with it, and in having the white of the chin, cheeks, and ear-coverts blending with the rufous of the throat and breast, and not sharply defined from it. The sexes of both species differ in the same relative manner.

Iris brown; upper mandible bluish black, lower plumbeous; legs and feet dark plumbeous; claws horn-colour.

Length about 5·5; tail 1·7; wing 3·2; tarsus ·75; bill from gape ·9.

*Distribution.* Throughout Pegu and Tenasserim, up to the Irrawaddy river on the west and to Karennee and the Salween river on the east, and extending south to the latitude of Muleyit mountain on both sides of the range.

*Habits, &c.* Bingham found the nest in Tenasserim on the 21st March, with five young birds, in a hole of a branch of a dead tree. The hole was about 6 inches deep, and the mouth of the hole was plastered and reduced in size by an edging of clay.

### 318. **Sitta nagaensis.** *Austen's Nuthatch.*

Sitta nagaensis, *Godw.-Aust. P. Z. S.* 1874, p. 44; *id. J. A. S. B.* xliii, pt. ii, p. 157, pl. iv; *Hume, Cat.* no. 248 ter; *Gadow, Cat. B. M.* viii, p. 344.

*Coloration. Male.* The lores and a band through the eyes down the sides of the neck black; upper plumage slaty blue; wings dark brown edged with slaty blue, the tertiaries wholly of this colour; middle tail-feathers slaty blue; the next pair black, with some slaty at base and tip; the next black, tipped with slaty on the outer web and whitish on the inner; the next two the same, with a broader white tip, subterminal on the inner web; outermost feather the same, but with a white band on the outer web; sides of the head and neck and the lower plumage grey; sides of the body rich chestnut; under tail-coverts white, tipped and edged with chestnut; under wing-coverts black, followed by a white patch at the base of the primaries visible only from below.

It is not known if the female differs from the male, but it probably will be found to do so.

Bill black above, grey below; iris dark brown; legs green-black (*Godwin-Austen*).

Length about 5; tail 1·6; wing 3; tarsus ·7; bill from gape ·75.

*Distribution.* Procured by Godwin-Austen at Sopvomah in the Nága Hills, on the watershed, at 6000 feet. Several specimens were obtained at the time.

### 319. **Sitta magna.** *The Giant Nuthatch.*

Sitta magna, *Wardlaw Ramsay, P. Z. S.* 1876, p. 677, pl. lxiii; *Hume S. F.* v, p. 343; *Wardlaw Ramsay, Ibis*, 1877, p. 465; *Hume & Dav. S. F.* vi, p. 201; *Hume, Cat.* no. 248 quat.; *Oates, B. B.* i, p. 133; *Gadow, Cat. B. M.* viii, p. 345.

*Coloration. Female.* Two broad black bands from the nostrils through the eyes to the shoulders; the space within these smoky grey, paling on the hind neck; upper plumage slaty blue; wings brown, edged with slaty blue; middle tail-feathers slaty blue; the next two pairs black with a slaty-blue tip; the next two black, with a subterminal patch of white and a slaty-blue tip; the outermost pair the same, but with a band of white on the outer web; lores, sides of the head, chin, and throat whitish; lower plumage smoky grey; thighs, vent, and under tail-coverts chestnut, the latter broadly tipped with white; under wing-coverts black, followed by a white patch at the base of the primaries only visible from below. The male is not known.

In the dry skin the bill is bluish, paler below; legs fleshy brown.

Length about 8; tail 2·7; wing 4·6; tarsus ·9; bill from gape 1·3.

*Distribution.* The unique specimen from which this species was described was procured by Wardlaw Ramsay in Karennee, or near its western borders, in January. This bird has not again been met with.

### 320. **Sitta kashmirensis.** *Brooks's Nuthatch.*

Sitta cashmirensis, *Brooks, Proc. A. S. B.* 1871, p. 209; *id. J. A. S. B.* xli, pt. ii, p. 75; *Hume, Cat.* no. 248 bis; *Gadow, Cat. B. M.* viii, p. 352.

*Coloration.* Upper plumage and wings slaty blue; a black band from the nostrils to the shoulders through the eyes; chin and sides of the face dull white tinged with fulvous; throat more fulvous, the lower plumage gradually becoming deeper and turning to deep chestnut on the abdomen, flanks, and under tail-coverts; middle tail-feathers ashy blue; the next two pairs black, edged and tipped with ashy; the next two black, with a subterminal white spot on the inner web; the outermost feather black, with a white patch on each web and a brown tip; under wing-coverts blackish, followed by a white patch on the primaries visible only from below; some traces of ashy are generally visible on the centres of the feathers of the under tail-coverts.

Length about 5; tail 1·7; wing 3·3; tarsus ·7; bill from gape ·95.

*Distribution.* I have examined specimens of this species procured at Hirpur and Gulmurg in Kashmir, at Murree, and at Byan Kheyl in Afghanistan. Brooks notes it in his original description as coming from the pine-forests of Kashmir.

*Habits, &c.* Wardlaw Ramsay states that this bird breeds in the Hariab District of Afghanistan in May.

### 321. **Sitta castaneiventris.** *The Chestnut-bellied Nuthatch.*

Sitta castaneoventris, *Frankl. P. Z. S.* 1831, p. 121; *Blyth, Cat.* p. 190; *Horsf. & M. Cat.* ii, p. 721; *Jerd. B. I.* i, p. 386; *Ball, S. F.* vii, p. 209; *Hume, Cat.* no. 250; *Davidson, S. F.* x, p. 300; *Davison, S. F.* x, p. 363; *Gadow, Cat. B. M.* viii, p. 351; *Barnes, Birds Bom.* p. 140; *Oates in Hume's N. & E.* 2nd ed. i, p. 194.

*Coloration. Male.* A black streak from the nostril through the eye to the shoulder; lores, cheeks, ear-coverts, and chin white; the whole upper plumage, wing-coverts, and visible portion of closed wings slaty blue; the whole lower plumage uniform dark chestnut-bay; under tail-coverts chestnut centred with ashy; under wing-coverts black, followed by a white patch on the primaries visible only from below; middle tail-feathers ashy blue; the next two black, edged and tipped with ashy blue; the others with a subterminal white patch on the inner webs, and generally with a white band on the outer web of the outermost feather.

*Female.* Resembles the male, but is pale chestnut below, and the white on the face is not so sharply defined.

Legs and feet dark greenish plumbeous; base of lower mandible and base of culmen at forehead pale plumbeous; rest of bill black; iris dark brown (*Davison*).

Length rather more than 5; tail 1·5; wing 3; tarsus ·7; bill from gape ·85.

Distinguished from *S. cinnamomeiventris* by its smaller size, paler coloration below, and by the different colour of the under tail-coverts.

*Distribution.* The greater portion of the continent of India, from the base of the Himalayas to the Wynaad. The western limits appear to be a line roughly drawn from Umballa through Dúngarpur in the Meywar State to Khandesh; and the eastern, a line drawn north and south through the Rajmehal hills.

*Habits, &c.* Probably a resident in the whole of the above tract. The nest has been found at Umballa, Allahabad, and Sitapur, in which places the breeding-season appears to extend from February to September. This nest is merely a few dead leaves at the bottom of a hole in a tree, the entrance to which is, as usual, reduced in size by the application of mud-plaster. The eggs are four in number, white, marked, chiefly at the large end, with brick-red and reddish lilac, and they measure ·67 by ·52.

Three distinct species of Rock-Nuthatches have hitherto been confounded together. *S. syriaca*, Ehrenb., from Syria, may be known by its large size, wing 3·8, first primary 1·3, and by the absence of all fulvous on the tail. *S. neumayeri*, Michah., may be distinguished from *S. syriaca* by its smaller size, wing 3 to 3·3, first primary 1·0, and by the presence of a large amount of fulvous on the tail. It occurs in Macedonia, Turkey, and Asia Minor. Both these species have the chin, throat, breast, and sides of the head pure white.

The third species, *S. tephronota*, which occurs from Persia to Central Asia, is of about the same size as *S. neumayeri*, but has the chin, throat, breast, and sides of the head pale fulvous, the tail is marked with fulvous as in that species, and the upper plumage is a pale ashy blue.

### 322. **Sitta tephronota.** *The Eastern Rock Nuthatch.*

Sitta syriaca (*Ehrenb.*), in part, *apud Horsf. & M. Cat.* ii, p. 721; *Seebohm, Ibis,* 1883, p. 21; *Gadow, Cat. B. M.* viii, p. 346.
Sitta tephronota, *Sharpe, A. M. N. H.* (4) x, p. 450 (1872); *Oates in Hume's N. & E.* 2nd ed. i, p. 195.
Sitta rupicola, *Blanf. Ibis,* 1873, p. 87; *id. E. Pers.* ii, p. 225, pt. xv, fig. 2.
Sitta neumayeri, *Michah.* in part, *Hume, Cat.* no. 248 quint.; *Gadow, Cat. B. M.* viii, p. 345; *Barnes, S. F.* ix, pp. 216, 453.

*Coloration.* Whole upper plumage, wing-coverts, secondaries, and tertiaries ashy blue; a broad black band from the nostril through the eye to the shoulder; primaries pale brown; central tail-feathers pale ashy blue, the others brown, broadly edged with pale ashy blue on the outer webs, this colour gradually changing to pale fulvous, the outermost feather having the inner web brown with a fulvous tip and the outer web fulvous with a brown tip; sides of the head and the lower plumage fulvous, pale on the throat and sides of the head, gradually getting darker and becoming strongly tinged with pink on the lower abdomen, vent, flanks, and under tail-coverts, these last being centred with ashy.

Bill horny brown, darker at tip; legs clay-slate (*Barnes*); iris dark brown (*Murray*).

Length about 6·5; tail 2·1; wing 3 to 3·6; tarsus ·9; bill from gape 1·1.

*Distribution.* Apparently common in Baluchistan, but not yet known to occur in Sind or the Punjab. To the west this species extends to Persia, and to the north through Afghanistan to Kashghar and Central Asia.

*Habits, &c.* Confined chiefly, if not entirely, to rocks, over which it climbs with great facility. Breeds in Afghanistan in March and April. According to Barnes the nest is constructed in the holes both of rocks and trees. When a rock is selected, the hole is lined with agglutinated mud and resin, this material being carried out in the form of a cone to a distance of fully eight inches from the rock. The nest is usually lined with camel-hair. The bird has a great fondness for ornamentation, and decorates its nest for some distance round with feathers. The eggs are four or five in number, smooth, and only moderately glossy. The ground-colour is pure white, and the egg is thinly speckled, chiefly at the large end, with pale red. In size the eggs average ·87 by ·57.

### 323. **Sitta leucopsis.** *The White-cheeked Nuthatch.*

Sitta leucopsis, *Gould, P. Z. S.* 1849, p. 113; *Horsf. & M. Cat.* ii, p. 721; *Jerd. B. I.* i, p. 385; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 26; *Hume, N. & E.* p. 161; *Hume & Hend. Lah. to Yark.* p. 181; *Hume, Cat.* no. 249; *Gadow, Cat. B. M.* viii, p. 352; *Oates in Hume's N. & E.* 2nd ed. i, p. 196.

*Coloration.* Forehead, crown, nape, and a part of the sides of the neck glossy black; upper plumage and the visible portions of the closed wings slaty blue; middle pair of tail-feathers slaty blue, the others black, tipped with slaty blue, and the three outer pairs with a subterminal patch of white on the inner web, the outermost pair also with a band of white on the outer web; sides of the head and lower plumage white, more or less tinged with pale fulvous; flanks and under tail-coverts rich chestnut. The female is similar to the male.

Iris brown; upper mandible and margins and point of the lower black; remainder of lower mandible whitish horny; legs brownish green (*Wardlaw Ramsay*).

Length about 5·5; tail 1·7; wing 3; tarsus ·7; bill from gape ·8.

*Distribution.* Throughout the N.W. Himalayas from Mussooree and Derali to Hazára and the whole of Kashmir at considerable elevations. Brooks says that this Nuthatch is common above Derali near the snows in the pine-forests; Biddulph remarks that it is a permanent resident in Gilgit, and breeds at 10,000 feet; and Scully informs us that he obtained this bird in Gilgit only from the beginning of April to September, and that it is never seen in the lower parts of the valley away from pine-forests. It extends into Afghanistan, where Wardlaw Ramsay found it on the Safed-Koh range above 7000 feet, breeding.

*Habits, &c.* Stoliczka, who found this bird to be common near Chini, observes that it feeds chiefly on the seeds of *Pinus gerardiana*, and that its voice is a loud, uniform, melancholy call, uttered while it is busily engaged in securing a pine-seed in the bark of a large tree.

Capt. Cock took the eggs of this bird at Sonamurg in Kashmir late in May and early in June. The eggs are coloured normally and measure about ·7 by ·55.

### 324. **Sitta formosa.** *The Beautiful Nuthatch.*

Sitta formosa, *Blyth, J. A. S. B.* xii, p. 938 (1843); *Blyth, Cat.* p. 189; *Jerd. B. I.* i, p. 387; *Hume, Cat.* no. 252; *Gadow, Cat. B. M.* viii, p. 357.

*Tishe Kuyi gumbo*, Lepch.

*Coloration.* Forehead, crown, nape, back, and the side of the neck black, streaked with cobalt-blue on the crown, nape, and lower back, with whitish blue on the upper back and sides of neck; sides of the head and chin fulvous-white, the feathers round the eye and over the ear-coverts more or less black at their bases; wings black; lesser wing-coverts, edges of the winglet, primary-coverts, primaries, and secondaries bright blue; the edges of the median and greater coverts and tertiaries white; scapulars, back, and rump verdigris-blue; lower plumage dull chestnut; middle tail-feathers blue, with the portion near the shaft black; the next two pairs black, edged with blue; the others black, with white tips progressively larger, the margin of the tips of the exterior webs pale blue.

Bill blackish; legs greenish horny, with yellow soles; iris dark brown (*Jerdon*).

Length about 7·5; tail 2·3; wing 4; tarsus ·85; bill from gape 1.

*Distribution.* Sikhim, probably not descending to a lower level than Darjiling, where Tickell, as recorded by Jerdon, procured a specimen. Mandelli's men procured a large series in Sikhim, and I note that they were killed both in summer and winter. This bird has been obtained at Asalú in the Khási hills, and also at Torúpútú Peak in the Daphla hills at 5000 feet, in both cases by Godwin-Austen.

### 325. **Sitta frontalis.** *The Velvet-fronted Blue Nuthatch.*

Sitta frontalis, *Horsf. Trans. Linn. Soc.* xiii, p. 162 (1821); *Gadow, Cat. B. M.* viii, p. 358; *Oates, B. B.* i, p. 134; *id. in Hume's N. & E.* 2nd ed. i, p. 196.
Sitta corallina, *Hodgs. J. A. S. B.* v, p. 779 (1836).
Dendrophila frontalis (*Horsf.*), *Blyth, Cat.* p. 190; *H. & M. Cat.* ii, p. 722; *Jerd. B. I.* i, p. 388; *Hume, N. & E.* p. 161; *id. S. F.* vii, p. 459; *Legge, Birds Ceyl.* p. 560; *Hume, Cat.* no. 253; *Barnes, Birds Bom.* p. 140.
Dendrophila corallina (*Hodgs.*), *Hume, S. F.* iii, p. 89; *Sharpe, t. c.* p. 436; *Anders. Yunnan Exped., Aves*, p. 633.

*Coloration.* The male has a broad band on the forehead and a long supercilium black; the whole upper plumage and wing-coverts blue; wing blackish brown, edged on the outer webs with blue, except the first two primaries, the tertiaries almost entirely blue; middle tail-feathers blue, the others blackish, edged and tipped with blue; ear-coverts lilac; chin and throat whitish; lower plumage greyish lilac.

The female resembles the male, but has no black supercilium.

Iris yellow; eyelids plumbeous; bill coral-red; mouth red; feet pinkish brown; claws pale horn; the young have the bill black, pinkish at the gape and nostrils; iris dark brown.

Length 5; tail 1·7; wing 2·9; tarsus ·7; bill from gape ·7.

*Distribution.* Throughout the greater portion of India and

Ceylon. The limit to the west appears to be approximately a line drawn from Bombay to Kumaun through Gwalior. This species inhabits the Himalayas from Kumaun to Dibrugarh, being found up to 5000 feet or higher. From Assam it ranges to the extreme south of Tenasserim, extending to the east at least as far as Karennee, where Wardlaw Ramsay obtained it.

It is found in the Malay peninsula and down to Java.

*Habits, &c.* Frequents well-wooded localities and forests alike in the hills and plains. Breeds from February to May and even to June, according to locality, constructing a small pad of a nest, composed of feathers, moss, and hair, in a tiny hole in a tree. The eggs are generally four in number, white, spotted with red, chiefly towards the large end, and measure about ·7 by ·56. This bird, contrary to the usual habits of Nuthatches, does not employ any mud to line the entrance to its nest.

## Family DICRURIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semirings; the edges of both mandibles smooth, with a single notch in the upper one; hinder aspect of tarsus smooth, bilaminated; wing with ten primaries; tongue non-tubular; nostrils clear of the line of the forehead; the lower edge of the nostril nearer to the commissure than the upper edge is to the culmen; plumage of the nestling like that of the adult bird, but paler; nostrils overhung by hairs or plumelets; rictal bristles present; rectrices ten; sexes absolutely alike; an autumn moult only.

The Dicruridæ, or Drongos, form one of the best-defined families of the Passeres, their generally black plumage and forked tail of ten feathers sufficing to distinguish them readily.

In the Drongos the plumage of the nestling is a dark brown, which soon gives place to the glossy black of the adult. In many species, however, the young birds, previously to adopting the adult plumage, acquire feathers on the abdomen, under wing-coverts, and axillaries which are tipped or fringed with white, and traces of these white marks remain in one or two species up to a very advanced age, and probably in some specimens are never lost at all.

The Drongos are handsome and, for the most part, familiar birds. They feed habitually on the wing, darting from some perch on a tree into the air to catch an insect and returning to the same or an adjoining branch. The *Dicruri* frequently perch on the backs of cattle. They all have cheerful notes, and *Dissemurus paradiseus* has a really fine song, and is perhaps the best singing-bird of the East.

Many of the Drongos, without being exactly migratory, are in many parts of the country subject to seasonal movements of greater or less extent; but the materials for tracing these movements are imperfect, no ornithologist having observed them in the careful manner in which similar movements of birds in Europe are recorded. In Pegu, for instance, *Dicrurus ater* arrives in great numbers in October and remains numerous till January, when the majority of the birds disappear. *Dicrurus annectens* similarly arrives in October, but only stops a few days, disappearing entirely and going on to unknown parts.

In all the Dicruridæ the wing is tolerably pointed and the tarsus very short.

The Drongos make cup-shaped nests in trees, and lay three to five eggs, which are whitish marked with various shades of red.

## *Key to the Genera.*

- *a.* Outer tail-feathers not greatly lengthened; not exceeding the middle ones by so much as the length of the wing.
  - *a′.* Forehead not tufted.
    - *a″.* Bill deep; depth at nostrils fully equal to width at that place ...... DICRURUS, p. 310.
    - *b″.* Bill depressed; depth at nostrils much less than width at that place. CHAPTIA, p. 318.
  - *b′.* Forehead tufted.
    - *c″.* Tuft composed of a few hairs several inches long .................... CHIBIA, p. 320.
    - *d″.* Tuft composed of a few hair-like feathers half an inch long ........ DISSEMUROIDES, p. 321.
    - *e″.* Tuft composed of ordinary feathers half an inch long................ DISSEMURULUS, p. 322.
- *b.* Outer tail-feathers greatly lengthened; exceeding the middle ones by twice or three times the length of wing.
  - *c′.* Terminal portion of outer tail-feather flat and equally webbed on both sides ............................ BHRINGA, p. 323.
  - *d′.* Terminal portion of outer tail-feather curled, greatly webbed on the outside and hardly at all on the inside ...... DISSEMURUS, p. 325.

## Genus **DICRURUS**, Vieill., 1816.

The Drongos of this genus are among the commonest of Indian birds, one or other of the species being found in every part of the country which is open or cultivated, and even in forest.

The various species of Drongos are not easily separable, except when large series of each are available for examination side by side. With the numerous specimens in the British Museum, the majority of which came from the Tweeddale and Hume Collections, I have been able to establish eight species which occur within my limits.

I am unable to find any characters by which the genus *Buchanga* can be separated from *Dicrurus*. The former is said to have a more deeply forked tail; but this feature cannot be regarded as of generic value, for it varies in all the species of this genus, and is a matter of degree only. I have therefore united the two genera.

Taking the eight species, it is easy at once to separate two from all the others by their perfectly black plumage, and from each other by the extent to which the tail is forked. These two species present no difficulty, and no one has seriously proposed to subdivide either of them into two or more races so far as Indian specimens are concerned. The African species or race *D. assimilis* need not be discussed here.

Another species, *D. leucogenys*, is also an easily recognizable one, having the sides of the head white. Very young birds might be confused with the Grey Drongos, presently to be noticed, were it not that they have the lores white or whitish, whereas the Grey Drongos have the lores dark brown or black. If *D. intermedius*, Blyth, recorded from Penang, was really killed at that place, and was not imported into it and subsequently re-exported to Calcutta (where it came under Blyth's notice), it must have been a young *D. leucogenys*. No other species of *Dicrurus* is known to occur in the Malay peninsula, at least near Penang. Blyth's title is too doubtful to be applied to any species.

Next come three species which may be termed Ashy or Grey Drongos. No two authors agree about these birds, and unanimous agreement regarding them will probably never be reached. In my opinion there are three distinct species in India and Burma, and no more. The differences in the shade of colour and in size in these species are correlated with different areas of distribution. There is, first, *D. longicaudatus*, which is found from the Himalayas to Ceylon and east to the Brahmaputra river. The upper plumage of this bird may be termed metallic indigo, and the lower a dark grey. South of the Brahmaputra, extending to Lower Pegu and Northern Tenasserim, the foregoing species is replaced by a bird the upper plumage of which may be termed bluish grey and the lower ashy grey. This bird is also found in Java, Lombock, and Palawan, and is the *Edolius cineraceus* of Horsfield. All Hodgson's birds in the British Museum are the dark continental species *D. longicaudatus*, and were killed in Nepal or Sikhim, and consequently his name (*D. pyrrhops*) cannot be applied to this pale Burmese species, even if a name were required for it, which fortunately is not the case. The third species is a dark bird inhabiting portions of Lower Pegu, all Tenasserim, and the Malay peninsula, as far south as Junk Ceylon. Its upper plumage may be termed deep ashy indigo and the lower dark grey. This bird has never received a name; it appears to be the *Buchanga leucophæa* of Vieillot apud Hume. The *Dicrurus leucophæus* of Vieillot is, however, in my opinion, a bird which can never be satisfactorily determined, and the continued use of the name can only lead to confusion.

There remain two species which are characterized by the presence of a considerable amount of pure white on the lower plumage. This character will suffice to separate them from all the other *Dicruri*. They may be separated from each other, not so much by the amount of white on the lower parts as by the colour of the throat and breast and the upper plumage.

In *Dicrurus* the bill is stout, sharply carinated, and covered at the base by thick-set feathers, which partially conceal the nostrils. There is no crest or tuft on the head. The tail is well forked, the outermost feather exceeding the middle pair by a distance of from one to two and a half times the length of the tarsus. The outer tail-feathers have a slight curl upwards.

### *Key to the Species.*

*a.* Entire plumage deep glossy black; the lower plumage sometimes mixed with white.
  *a'.* Outermost tail-feather exceeding middle pair by a distance about equal to tarsus. *D. annectens*, p. 312.
  *b'.* Outermost tail-feather exceeding middle pair by a distance greater than twice tarsus .......... *D. ater*, p. 312.
*b.* Upper plumage deep indigo.
  *c'.* Lower plumage uniform dark grey.
    *a''.* Outermost tail-feather exceeding middle pair by more than 2 inches; length of tail 5·5 to 7 inches .......... *D. longicaudatus*, p. 314.
    *b''.* Outermost tail-feather exceeding middle pair by much less than 2 inches; length of tail 4·9 to 5·5 inches ...... *D. nigrescens*, p. 315.
  *d'.* Lower plumage partially white.
    *c''.* Throat and breast grey .......... *D. cærulescens*, p. 316.
    *d''.* Throat and breast dark brown ...... *D. leucopygialis*, p. 316.
*c.* Upper plumage bluish grey.
  *e'.* Lores or whole side of head white or whitish .......... *D. leucogenys*. p. 317.
  *f'.* Lores blackish; sides of head similar to upper plumage .......... *D. cineraceus*, p. 318.

### 326. **Dicrurus annectens.** *The Crow-billed Drongo*

Buchanga annectans, *Hodgs. Ind. Rev.* i, p. 326 (1837).
Edolius affinis, *Blyth, J. A. S. B.* xi, p. 174 (1842).
Dicrurus balicassius (*Linn.*), *Blyth, Cat.* p. 202; *Horsf. & M. Cat.* i, p. 152; *Jerd. B. I.* i, p. 430; *Hume, S. F.* ii, p. 209.
Dicrurus annectens (*Hodgs.*), *Blyth & Wald. Birds Burm.* p. 131; *Sharpe, Cat. B. M.* iii, p. 231; *Tweedd. Ibis*, 1878, p. 72; *Hume & Dav. S. F.* vi, pp. 213, 509; *Hume, Cat.* no. 279; *Oates, S. F.* x, p. 201; *id. B. B.* i, p. 217.

*Coloration.* The whole plumage black glossed with steel-blue, except on the lores, ear-coverts, the inner webs of the quills, axillaries, and under wing-coverts.

Birds not quite adult have the axillaries and under wing-coverts tipped with white, and birds still younger have the under tail-coverts also tipped with white.

Young birds of the year have the whole lower plumage from the breast to the tail barred with white.

The change from the young to the adult plumage consists entirely in the gradual disappearance of the white marks on the lower plumage; but there is a tendency to retain these marks in some degree even in old age; and birds entirely black are comparatively seldom met with.

Bill and legs black; iris brown (*Jerdon*).

Length about 10·5; tail up to 5·5; wing 5·6; tarsus ·8; bill from gape 1·2.

*Distribution.* The lower levels of Nepal and Sikhim, extending into the plains of Oudh; thence along the base of the Himalayas to Dibrugarh in Assam. From this Province the species apparently extends through Burma and the Malay peninsula to Singapore and Sumatra; but it has only been recorded with certainty from Lower Pegu, the southern portion of Tenasserim, and Malacca. It is found in Cochin China.

This species appears to be, in some measure, migratory; but its movements are difficult to trace. I have seen birds killed in Oudh from December to February; at Dibrugarh in June; in Lower Pegu in October; in Tenasserim from November to May; and at Malacca from August to April. I have seen *D. annectens* in Pegu only in October.

*Habits, &c.* From what I observed of this bird in Pegu, its habits do not differ in any respect from those of the next. Nothing is known of its nidification.

### 327. **Dicrurus ater.** *The Black Drongo.*

Muscicapa atra, *Hermann, Obs. Zool.* p. 208 (1804).
Dicrurus macrocercus, *Vieill. Nouv. Dict. d'Hist. Nat.* ix, p. 588 (1817); *Blyth, Cat.* p. 202; *Jerd. B. I.* i, p. 427; *MacMaster, J. A. S. B.* xl, pt. ii, p. 210.

Edolius forficatus, *Horsf. Trans. Linn. Soc.* xiii, p. 144 (1821).
Buchanga albirictus, *Hodgs. Ind. Rev.* i, p. 326 (1837); *Hume, N. & E.* p. 186.
Dicrurus minor, *Blyth, Layard, A. M. N. H.* (2) xiii, p. 129 (1854).
Dicrourus longus, *Temm., Bonap. Consp. Av.* i, p. 352 (1850); *Horsf. & M. Cat.* i, p. 152; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 99.
Dicrurus cathœcus, *Swinh. P. Z. S.* 1871, p. 377.
Dicrurus albirictus (*Hodgs.*), *Hume, S. F.* iii, p. 97.
Buchanga atra (*Herm.*), *Blyth & Wald. Birds Burm.* p. 129; *Sharpe, Cat. B. M.* iii, p. 246; *Hume & Dav. S. F.* vi, p. 213; *Anders. Yunnan Exped., Aves*, p. 653; *Legge, Birds Ceyl.* p. 386; *Hume, Cat.* no. 278; *Scully, S. F.* viii, p. 270; *Oates, B. B.* i, p. 218; *Barnes, Birds Bom.* p. 154; *Hume, S. F.* xi, p. 98.
Dicrurus ater (*Herm.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 198.

*The Common Drongo-Shrike*, Jerd.; *Kolsa, Bojanga, Buchanga*, Hind. in the South; *Finga*, Beng.; *Japal Kalchit*, Punj.; *Kunich, Kalcolachi*, Sind; *Thampal* in the N. W. P.; *Kotwal* in the Deccan; *Yeti-inta, Baradwa-jam, Passala-poli-gadu*, Tel.; *Kurri-Kurrumah*, Tam.; *Kari-Kuruvi*, Tam. in Ceylon.

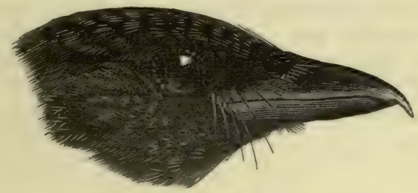

Fig. 95.—Head of *D. ater*.

*Coloration.* The whole plumage deep black, everywhere glossed with steel-blue; a small white spot sometimes present close to the angle of the gape.

The young have the wings and the lower plumage brownish, and all the feathers of the lower plumage and under wing-coverts tipped with white.

It is only when very old that this species is entirely black. Few birds are without white tips to the under tail-coverts.

Bill black; iris red; feet and claws black.

Length about 12·5; tail 6 to 7; wing up to 6; tarsus ·85; bill from gape 1·15.

The causes which govern the presence or absence of the white rictal spot are not yet known. This white spot is occasionally present in Chinese specimens, contrary to what is usually asserted.

The Black Drongo has been regarded by many ornithologists as separable into several races. In my opinion the differences of size and minor details of structure which exist in birds from various localities are not greater than might be expected from a species of this size—the length of tail, one of the points frequently insisted upon, ranging from 6 to 7 inches only, and the length of wing varying still less.

*Distribution.* The whole of India from Afghanistan to Assam, and from the Himalayas to Ceylon; the whole of the eastern portion of the Empire from Assam to the extreme south of Tenasserim. On the Himalayas this bird is found up to 5000 feet or even higher. It extends into China, Siam, and Cochin China. It appears to be absent from the Malay peninsula.

This Drongo is a partial migrant in many parts of the Empire, such as Assam and Pegu, and is more common in these Provinces during the cold weather than at other times.

*Habits, &c.* The King-Crow, as this species is termed by many in India, is a common and familiar bird, being found in the neighbourhood of bungalows and throughout the open and cultivated parts of the country. It perches on any exposed and commanding point it can find, and swoops on passing insects, frequently resting on the ground a second or two to complete its capture, and returning to its original or a similar perch close by. The note of this bird is metallic and very pleasant. The King-Crow breeds chiefly during May, June, and July. The nest is placed in a leafy bough of a tree, and is composed of fine twigs and grass-stems woven together and covered exteriorly with a good deal of cobweb. The eggs, usually four, but occasionally five, in number, are of two types: one is pure spotless white, the other pale salmon-colour with brownish-red spots. They measure 1·01 by ·75.

### 328. **Dicrurus longicaudatus.** *The Indian Ashy Drongo.*

Dicrurus longicaudatus, *A. Hay, Jerdon, Madr. Journ. L. S.* xiii, pt. ii, p. 121 (1845); *Blyth, Cat.* p. 202; *Horsf. & M. Cat.* i, p. 152; *Jerd. B. I.* i, p. 430; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 27; *Oates in Hume's N. & E.* 2nd ed. i, p. 203.

Dicrurus pyrrhops, *Hodgs. in Gray's Zool. Misc.* p. 84 (1844) (no description).

Dicrurus cinerascens, *Gray, Cat. Mamm. &c. Nepal*, p. 98 (1846).

Dicrurus himalayanus, *Tytler, Ibis*, 1868, p. 200.

Buchanga waldeni, *Beavan, Ibis*, 1868, p. 497.

Buchanga longicaudata (*A. Hay*), *Hume, N. & E.* p. 189; *Sharpe, Cat. B. M.* iii, p. 249; *Legge, Birds Ceyl.* p. 390; *Hume, Cat.* no. 280; *Scully, S. F.* viii, p. 270.

Buchanga pyrrhops (*Hodgs.*), *Sharpe, Cat. B. M.* iii, p. 251.

Buchanga longicauda (*Hay*), *Barnes, Birds Bom.* p. 154.

*The Long-tailed Drongo*, Jerd.; *Sahim* or *Sahim-pho*, Lepch.; *Chechum*, Bhut.; *Nil finga*, Beng.; *Erratoo valan kuruvi*, Tam.

*Coloration.* The whole upper plumage metallic indigo; lower plumage dark grey; frontal feathers and lores blackish.

The young are dark brown; on assuming the plumage of the adult the feathers of the under tail-coverts and under wing-coverts are tipped with white, and these white tips are gradually lost with age.

Bill, legs, and claws black; iris red.

Length about 12; tail up to 7, but usually between 5·5 and 6·5; wing up to 5·8; tarsus ·7; bill from gape 1·1; depth of fork of tail more than two inches.

Large and small specimens of this species occur in the same place; for instance the tail varies thus:—Nepal 6·2–6·6; Sikhim 5·6–6·3; Simla 5·9–6·4; Bombay 6·1–7·0; Belgaum 6·2–7·0; Etáwah 6·0–6·3; Dollah 6·2–6·8; Ceylon 5·6–5·8. The wing varies from 5 in Ceylon to 5·8 in Belgaum, Sikhim, and Dollah. The colour of all continental birds, large or small, is absolutely the same.

*Distribution.* The whole of India from the Hazára country to Assam, north of the Brahmaputra river, and from the Himalayas to Ceylon. The only portion of this vast tract from which this species appears to be absent is Sind, Guzerat, and portions of Rajputana. On the Himalayas it is found as high as 10,000 feet, and Stoliczka observed it far up the valley of the Sutlej river. On the east the river Brahmaputra appears to be everywhere its limit, the Drongo of Dacca and Shillong being *D. cineraceus*.

*Habits, &c.* Very similar to those of *D. ater*, but the present species is more frequently found in forests and well-wooded localities, and less frequently near houses. It perches habitually on the summit of trees and takes longer swoops, rarely touching the ground. It breeds chiefly in May and June, constructing its nest high up in trees. The eggs are of various types, but on the whole resemble the spotted eggs of *D. ater* and measure ·95 by ·74.

### 329. **Dicrurus nigrescens.** *The Tenasserim Ashy Drongo.*

Buchanga intermedia (*Blyth*), *Walden, P. Z. S.* 1866, p. 545; *Oates, S. F.* v, p. 149.
Buchanga longicaudata (*Hay*), *Hume & Dav. S. F.* vi, p. 213; *Oates, B. B.* i, p. 220.
Dicrurus nigrescens (*Oates*), *Oates in Hume's N. & E.* 2nd ed. i, p. 208.

*Coloration.* Above dark metallic ashy indigo; below dark grey; the lores and frontal feathers blackish.

Iris red; bill, legs, and feet black.

Length about 10·5; tail 4·9 to 5·5; wing up to 5·4; tarsus ·7; bill from gape 1·05; depth of fork of tail much less than 2 inches.

*Distribution.* From about a line connecting Rangoon, Pegu town, Thatone, and Pahpoon to the extreme south of Tenasserim, and thence to Junk Ceylon, the most southern point from which I have seen this species.

*Habits, &c.* Similar to those of *D. longicaudatus.* I found a nest of this Drongo at Kyeikpadein near Pegu on the 27th April, containing four eggs, which were white marked with pale purple, and measured about ·89 by ·7.

### 330. **Dicrurus cærulescens.** *The White-bellied Drongo.*

Lanius cærulescens, *Linn. Syst. Nat.* i, p. 134 (1766).
Lanius cæruleus, *Müll. Syst. Nat. Suppl.* p. 72 (1776).
Dicrurus cærulescens (*Linn.*), *Blyth, Cat.* p. 203; *Horsf. & M. Cat.* i, p. 154; *Jerd. B. I.* i, p. 432; *Butler, S. F.* iii, p. 465; *Oates in Hume's N. & E.* 2nd ed. i, p. 209.
Dicrurus cæruleus (*Müll.*), *Hume, N. & E.* p. 191.
Buchanga cærulescens (*Linn.*), *Sharpe, Cat. B. M.* iii, p. 252; *Ball, S. F.* vii, p. 211; *Hume, Cat.* no. 281; *Scully, S. F.* viii, p. 271; *Reid, S. F.* x, p. 33; *Davidson, S. F.* x, p. 303; *Davison, t. c.* p. 366; *Barnes, Birds Bom.* p. 155.

*Phari buchanga, Dhapri,* Hind.; *D'houli,* Beng.; *Nella* (or *Konda*) *passala poligadu,* Tel.

*Coloration.* Upper plumage deep indigo; throat and breast grey; abdomen, flanks, vent, and under tail-coverts white; the axillaries frequently tipped white.

Iris red; bill, legs, and feet blackish (*Hume Coll.*).

Length about 9·5; tail 4·5 to 5·5; wing 4·5 to 5·5; tarsus ·75; bill from gape 1·05; depth of fork of tail about 1·5 inches.

*Distribution.* Almost the whole of India proper, extending into Ceylon and ascending the Himalayas up to about 6000 feet. The north-western limits of this species appear to be a line drawn roughly from Cutch to Garhwál, and its eastern boundary the meridian of longitude traversing the eastern portion of the Rajmehal hills.

*Habits, &c.* A considerable number of these birds appear to spend the summer in the Himalayas and the winter in the plains; but many are no doubt resident in the latter, for they have been known to breed there, and their nests have been found in July. This Drongo frequents open jungle. The nest is described by Thompson as resembling that of *D. ater*, and it is built in the Himalayas near the top of moderate-sized trees in May and June. In Khandesh this species appears to breed in June and July. The eggs have not been described.

The White-bellied Drongo is said by Butler to have a rich Oriole-like note.

### 331. **Dicrurus leucopygialis.** *The White-vented Drongo.*

Dicrurus leucopygialis, *Blyth, J. A. S. B.* xv, p. 298 (1846); *id. Cat.* p. 203; *Oates in Hume's N. & E.* 2nd ed. i, p. 209.
Buchanga leucopygialis (*Blyth*), *Holdsw. P. Z. S.* 1872, p. 439; *Sharpe, Cat. B. M.* iii, p. 253; *Hume, S. F.* vii, p. 374; *id. Cat.* no. 281 bis; *Legge, Birds Ceyl.* p. 392, pl. 16.
Buchanga insularis, *Sharpe, Cat. B. M.* iii, p. 253; *Hume, S. F.* vii, p. 374; *id. Cat.* no. 281 ter.

*Kowda* or *Kawuda Panika,* Ceyl.

*Coloration.* Upper plumage deep indigo; throat, breast, and abdomen dark brown, the lower part of the abdomen frequently mixed with white; vent and under tail-coverts generally white, sometimes merely albescent; occasionally only the under tail-coverts are white.

Iris red; bill, legs, and feet blackish (*Hume Coll.*).

Of the same dimensions as *D. cærulescens.*

The amount of white on the lower plumage of this and *D. cærulescens* is variable, and occasionally a bird is met with which might, as regards this character, be assigned indifferently to one or the other species, but the colour of the throat and breast will, in these cases, be a safe guide to identification.

*Distribution.* Ceylon only.

*Habits, &c.* This species breeds from March to May, constructing its nest in a tree at a considerable height from the ground. The eggs, two to four in number, are whitish marked with red, and measure about ·93 by ·7.

### 332. **Dicrurus leucogenys.** *The White-cheeked Drongo.*

? Dicrurus intermedius, *Blyth, J. A. S. B.* xv, p. 298 (1846).
Dicrurus cineraceus (*Horsf.*), *apud Blyth, Cat.* p. 203.
Buchanga leucogenys, *Walden, A. M. N. H.* (4) v, p. 219 (1870); *id. in Blyth's Birds Burm.* p. 131; *Sharpe, Cat. B. M.* iii, p. 251; *Tweedd. Ibis,* 1878, p. 69; *Hume & Dav. S. F.* vi, p. 216; *Hume, Cat.* no. 280 quat.; *Oates, B. B.* i, p. 222.
Dicrurus leucophæus (*Vieill.*), *apud Hume, S. F.* ii, p. 210.

*Coloration.* Whole upper plumage clear pale bluish grey; the shafts of the tail and quills and the tips of the first six or seven primaries black; lores, ear-coverts, and a space round the eye pure white; forehead and nasal bristles black; lower plumage like the upper but paler, and the vent and under tail-coverts albescent; under wing-coverts white tinged with grey.

Young birds have the white of the face less pure and smaller in extent, but even in the youngest birds the lores are white or whitish; the upper plumage, wings, and tail are suffused with brown, rendering the black shafts less conspicuous; the under wing-coverts are grey tipped with white.

Legs, feet, claws, bill, and eyelids black; iris pale lake to crimson (*Davison*).

Length about 10·5; tail 5·7; wing 5·5; tarsus ·75; bill from gape 1·1.

*Distribution.* Tenasserim from Mergui southwards; the Andaman Islands. This species extends down the Malay peninsula to Singapore, and eastwards to Siam, Cochin China, and China, and it is found even in Japan. It is stated to be a migratory bird.

*Habits, &c.* According to Davison this Drongo is a forest species, but it is also found in clearings, and it has the usual habits of the genus.

### 333. **Dicrurus cineraceus.** *The Grey Drongo.*

Edolius cineraceus, *Horsf. Trans. Linn. Soc.* xiii, p. 145 (1821).
Buchanga mouhoti, *Walden, A. M. N. H.* (4) v, p. 220 (1870).
Buchanga wallacei, *Walden, A. M. N. H.* (4) v, p. 220 (1870).
Dicrurus longicaudatus (*Hay*), *Hume, S. F.* iii, p. 97.
Dicrurus leucophæus (*Vieill.*), *Hume, S. F.* iii, p. 99.
Buchanga cineracea (*Horsf.*), *Sharpe, Cat. B. M.* iii, p. 250.
Buchanga longicaudata (*Hay*), *Anders. Yunnan Exped., Aves,* p. 654.
Buchanga leucophæa (*Vieill.*), *Oates, B. B.* i, p. 221.
Buchanga pyrrhops (*Hodgs.*), *Hume, S. F.* xi, p. 99.

*Coloration.* Frontal plumes and lores black; the whole plumage bluish grey, glossy above, paler underneath and without gloss except on the breast; upper wing-coverts centred darker; quills more or less brown, tinged with ashy on the outer webs; tail clear bluish grey, the shafts black and the tips brownish.

Bill black; mouth dusky flesh-colour; iris crimson; feet and claws black; in the young the iris is brown.

Length 11; tail 5·3 to 6·5; wing 5·2 to 5·75; tarsus ·7; bill from gape 1·1.

*Distribution.* From the Brahmaputra river and the eastern branch of the Ganges delta down to Lower Pegu and Northern Tenasserim. The southern limit of this species, so far as the specimens I have examined serve to show it, is a line drawn from Pegu town to Thatone and on to Pahpoon. *D. nigrescens* is also found along this line, and both species procured at the above places are quite typical and distinct one from the other. Wardlaw Ramsay obtained *D. cineraceus* in Karennee and the Toungngoo hills. It extends into Siam. It is not found in any portion of the Malay peninsula, but it reappears in Java, Lombock, and Palawan.

*D. stigmatops*, Sharpe, is a very distinct species of this type, with the lores pure white. It is found in Sumatra and Borneo.

*Habits, &c.* This species frequents forests and the better wooded parts of the country. I did not succeed in finding its nest in Pegu, and nothing is known of its nidification.

## Genus **CHAPTIA**, Hodgs., 1837.

The genus *Chaptia* resembles *Dicrurus* in many respects. It differs chiefly in its very depressed and flattened bill, and in the pointed character of the feathers of the crown and hind neck. The plumage is very glossy. The tail is much forked, the middle pair of feathers reaching very little beyond the middle of the tail.

### 334. **Chaptia ænea.** *The Bronzed Drongo.*

Dicrurus æneus, *Vieill. Nouv. Dict. d'Hist. Nat.* ix, p. 586 (1817).
Chaptia malayensis, *A. Hay, Blyth, J. A. S. B.* xv, p. 294 (1846); *Blyth, Cat.* p. 200; *Horsf. & M. Cat.* i, p. 393; *Tweedd. Ibis,*

1877, p. 315; *Sharpe, Cat. B. M.* iii, p. 244; *Hume & Dav. S. F.* vi, p. 218; *Hume, Cat.* no. 282 bis.

Chaptia ænea (*Vieill.*), *Blyth, Cat.* p. 200; *Horsf. & M. Cat.* i, p. 159; *Jerd. B. I.* i, p. 438; *Hume, N. & E.* p. 192; *id. S. F.* iii, p. 100; *Armstrong, S. F.* iv, p. 320; *Sharpe, Cat. B. M.* iii, p. 243; *Anders. Yunnan Exped., Aves,* p. 652; *Hume & Dav. S. F.* vi, p. 217; *Hume, Cat.* no. 282; *Oates, S. F.* viii, p. 166; *Scully, S. F.* viii, p. 272; *Bingham, S. F.* ix, p. 173; *Oates, B. B.* i, p. 223; *Barnes, Birds Bom.* p. 155; *Hume, S. F.* xi, p. 100; *Oates in Hume's N. & E.* 2nd ed. i, p. 210.

*Buchanga,* Beng.; *Chota Kesraj* at Gorakhpur; *Chaptia,* Nep.

*Coloration.* The whole plumage black glossed with metallic bronze or lilac; lower abdomen, vent, and under tail-coverts dull brownish; under wing-coverts generally tipped white, the axillaries less frequently so.

Bill, legs, and feet black; iris red or reddish.

Length about 9·5; tail 4·5 to 6; wing 4·2 to 5; tarsus ·65; bill from gape 1.

It seems impossible to separate the race of this bird which inhabits India and the greater part of Burma from the race which is found in Southern Tenasserim, the Malay peninsula, Sumatra, and Borneo. Typical specimens may be selected from the Himalayas and from Sumatra which present certain points of difference, but these are by no means striking, and the two varieties are connected together by other specimens which it is difficult to assign to either race.

Birds of this species from India have the wing of the average length of 4·7 inches. In Tenasserim the wings of this bird average the same, but some few specimens can be found with wings no longer than 4·2, and in Sumatra we meet with wings measuring 4·4. The tails vary immensely in length even in the same localities. In Sumatra they range from 4 to 4·2, and in India they ordinarily measure 4·7; but a remarkably fine Sikhim bird has the tail actually 6·2 in length, and others from the same place have it no longer than 4·4. I think, therefore, that we may discard size as a character by which the two races may be separated.

With regard to colour, Indian birds have a perceptible grey dulness on the rump, and they have the abdomen generally, but not always, greyish. Sumatran birds have the rump as black and as glossy as the other parts of the upper plumage, and the abdomen, as a rule, dark-coloured. They have, moreover, a lilac gloss on the upper plumage, which is generally absent in Indian birds, but some fine Sikhim specimens show traces of it. There are no other differences between the two races.

*Distribution.* The western portion of India from Travancore up to Khandála; the Himalayas from Mussooree to the extreme end of the Assam valley; Eastern Bengal; thence through the entire eastern portion of the Empire, ranging down the Malay peninsula to Sumatra and Borneo.

Jerdon records this bird from the Bastar country in the Central Provinces, where, however, it has not again been observed either by Ball or any other ornithologist.

*Habits, &c.* This species is found in forest country, from the level of the sea up to 7000 or 8000 feet. It takes its station on the summit of lofty trees, and swoops on insects with a very graceful flight, returning to the same perch. It breeds from April to June, constructing its nest, which is made of grass and vegetable fibres overlaid with cobwebs, in the fork of a branch at a considerable height from the ground. The eggs, three in number, are pinkish marked with red and purplish, and measure about ·82 by ·61.

## Genus **CHIBIA**, Hodgs., 1837.

In *Chibia* the bill is considerably lengthened, pointed, and curved downwards, in order that it may be inserted into flowers, upon the contents of which, such as nectar and insects, the birds of this genus largely feed.

The plumage of *Chibia* is excessively brilliant, and the feathers of the sides of the neck are greatly lengthened and pointed. Some half a dozen hairs, several inches in length, spring in a bunch from the posterior part of the crown, which is otherwise smooth and free from any tuft. The tail is nearly square, and the tips of the outermost feathers are much curved upwards.

### 335. **Chibia hottentotta.** *The Hair-crested Drongo.*

Corvus hottentottus, *Linn. Syst. Nat.* i, p. 155 (1766).
Chibia hottentotta (*Linn.*), *Blyth, Cat.* p. 200; *Jerd. B. I.* i, p. 439; *Hume, N. & E.* p. 194; *id. S. F.* iii, p. 101; *Sharpe, Cat. B. M.* iii, p. 235; *Anders. Yunnan Exped., Aves,* p. 651; *Tweedd. Ibis,* 1878, p. 73; *Hume & Dav. S. F.* vi, p. 222; *Hume, Cat.* no. 286; *Oates, S. F.* viii, p. 167; *Scully, S. F.* viii, p. 272; *Bingham, S. F.* ix, p. 174; *Davison, S. F.* x, p. 367; *Oates, B. B.* i, p. 227; *Barnes, Birds Bom.* p. 157; *Hume, S. F.* xi, p. 102; *Oates in Hume's N. & E.* 2nd ed. i, p. 213.
Dicrurus (Chibia) hottentota (*Linn.*), *Horsf. & M. Cat.* i, p. 157.

*Krishna-raj* or *Kishen-raj* or *Kesraj*, Beng. & Hind.; *Kesya, Jobraj*, Nep.; *Povong-pho*, Lepch.; *Yentika passala poligadu*, Tel.

*Coloration.* The whole plumage black, with metallic blue reflections on the crown and the hackled feathers of the neck and breast; wing-coverts and outer webs of the quills and tail-feathers glossed with metallic bronze.

Iris dark brown; bill, legs, and claws black.

Length 12·5; tail 6; wing up to 7; tarsus ·9; bill from gape 1·6.

*Distribution.* The western coast of India from the Wynaad to Mahableshwar; Raipur; Sambalpur; Chutia Nagpur; the Himalayas from Garhwál to the extreme east of Assam; southern and eastern Bengal, thence extending through Assam and Burma nearly to the extreme southern point of Tenasserim. This species does not appear to ascend the Himalayas to any great height, probably not above 3000 feet. The same, or a closely allied, form is found in China (*C. brevirostris*, Cab.).

*Habits, &c.* This Drongo is found only in forests or well-wooded localities, generally in small flocks, feeding on high trees. Its food consists in great measure of insects which harbour in flowers, and it catches insects on the wing less habitually than the other Drongos. It breeds from April to June, constructing a cradle-like nest at the extreme tip of a branch, generally at a great height from the ground. Those nests which I found in Pegu were secured with great difficulty. The eggs, generally three in number, are white or pinkish, marked with reddish brown or purple. They measure about 1·12 by ·81.

## Genus **DISSEMUROIDES**, Hume, 1873.

The genus *Dissemuroides* differs from *Dicrurus* in possessing a tuft of hair-like feathers about half an inch long springing from the forehead. It contains two species which merely differ from each other in size.

### *Key to the Species.*

| | |
|---|---|
| *a.* Tail 6·5; wing 5·3 ..................... | *D. andamanensis*, p. 321. |
| *b.* Tail 8; wing 5·8 ....................... | *D. dicruriformis*, p. 322. |

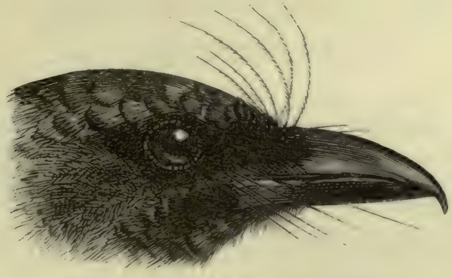

Fig. 96.—Head of *D. andamanensis.*

### 336. **Dissemuroides andamanensis.** *The Small Andamanese Drongo.*

Dicrurus andamanensis, *Tytler*, *Beavan*, *Ibis*, 1867, p. 323.
Buchanga (Dicrurus) andamanensis (*Tytler*), *Ball*, *J. A. S. B.* xli, pt. ii, p. 282; *id. S. F.* i, p. 66.

Buchanga andamanensis (*Tytl.*), *Wald. Ibis*, 1873, p. 310.
Dissemuroides andamanensis (*Tytl.*), *Hume, S. F.* ii, p. 211; *Sharpe, Cat. B. M.* iii, p. 255; *Tweedd. Ibis*, 1878, p. 77; *Hume, Cat.* no. 283 ter.

*Coloration.* Black with a greenish-blue gloss over most of the plumage; primaries and secondaries brown; under wing-coverts and axillaries tipped with white.

Bill, legs, and feet black; iris hair-brown, sometimes very deep and almost blackish (*Hume*).

Length about 11·5; tail 6·5; wing 5·3; tarsus ·9; bill from gape 1·3; depth of fork of tail about 2.

*Distribution.* Port Blair and Macpherson's Straits and probably other parts of the Andaman Islands.

*Habits, &c.* Apparently the same as those of *Dicrurus ater.*

### 337. **Dissemuroides dicruriformis.** *The Large Andamanese Drongo.*

Dissemuroides dicruriformis, *Hume, S. F.* i, p. 408 (1873); ii, p. 211; *Sharpe, Cat. B. M.* iii, p. 255; *Tweedd. Ibis*, 1878, p. 77; *Hume, Cat.* no. 283 bis.

*Coloration.* Resembles *D. andamanensis* in all respects except that of size.

Bill, legs, and feet black; iris dark brown (*Hume*).

Length about 14; tail 8; wing 5·8; tarsus 1; bill from gape 1·45.

*Distribution.* The Great Coco and Table Islands in the Andaman group.

*Habits, &c.* Davison remarks that this species has the habits of the *Dicruri.*

## Genus **DISSEMURULUS**, n. gen.

I propose the above generic name for a bird which has hitherto been tossed about between the genera *Dissemurus*, *Dissemuroides*, and *Dicrurus*. *Dissemurulus lophorhinus*, the type and sole member of the genus, is characterized by the possession of a tuft of ordinary feathers, about half an inch long, on the forehead. This character separates it from the last two genera mentioned above, and it is separated from *Dissemurus* by the deeply forked tail, the outermost feathers of which are neither produced to an extraordinary length, nor have a bare shaft with a short length of terminal web.

### 338. **Dissemurulus lophorhinus.** *The Ceylon Black Drongo.*

Dicrurus lophorinus, *Vieill. Nouv. Dict. d'Hist. Nat.* ix, p. 587 (1817); *Walden, Ibis*, 1867, p. 468.
Dicrurus edoliformis, *Blyth, J. A. S. B.* xv, p. 297 (1846); *id. Cat.* p. 202; *id. Ibis*, 1867, p. 305.

Dissemuroides edoliiformis (*Blyth*), *Sharpe, Cat. B. M.* iii, p. 256; *Tweedd. Ibis*, 1878, p. 78.
Dissemuroides lophorhinus (*Vieill.*), *Hume, S. F.* vii, p. 375; *id. Cat.* no. 283 quat.
Dissemurus lophorhinus (*Vieill.*), *Legge, Birds Ceyl.* p. 396, pl. 17.
Dissemurulus lophorhinus (*V.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 215.

*Kowda, Kaputa baya*, Ceyl.

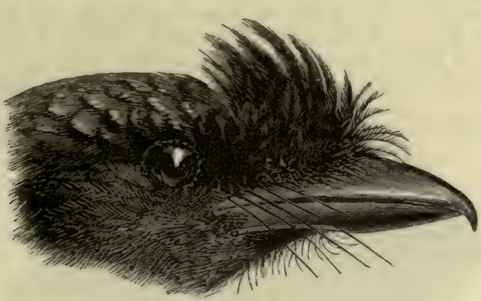

Fig. 97.—Head of *D. lophorhinus.*

*Coloration.* The whole plumage black, highly glossed with blue and green on the tips and margins of the feathers, except on the abdomen and flanks; under wing-coverts and axillaries tipped with white.

Iris dull brownish red or dark yellowish red; bill, legs, and feet black (*Legge*).

Length about 14; tail about 8; wing 6; tarsus 1·1; bill from gape 1·4; depth of fork of tail 2·5.

*Distribution.* The damp forests of Ceylon up to 3000 feet.

*Habits, &c.* According to Legge this Drongo breeds in the south of Ceylon at the beginning of April, but the nest and eggs are not known.

## Genus **BHRINGA**, Hodgs., 1837.

With the genus *Bhringa* we enter upon those Drongos which have the outer pair of tail-feathers produced to an extravagant length, the middle portion of the shaft being webless. The genus *Bhringa* differs from *Dissemurus*, the next genus, and the only one with which it can be confounded, by having the terminal portion of the outer tail-feathers flattened and equally webbed on both sides of the shaft. This terminal portion is about four inches in length, and the preceding bare portion of the shaft is about three times this length.

Jerdon was in error in stating that the lengthened tail-feathers were present only at the breeding-season. Adults after once acquiring them, never lose them. The young acquire them at the second autumn moult.

### 339. **Bhringa remifer.** *The Lesser Racket-tailed Drongo.*

Edolius remifer, *Temm. Pl. Col.* iii, pl. 178 (1823).
Bhringa tectirostris, *Hodgs. Ind. Rev.* i, p. 325 (1837); *Hume, N. & E.* p. 193; *id. S. F.* iii, p. 101.
Bhringa remifer (*Temm.*), *Blyth, Cat.* p. 200; *Horsf. & M. Cat.* i, p. 159; *Jerd. B. I.* i, p. 434; *Blyth & Wald. Birds Burm.* p. 128 *Sharpe, Cat. B. M.* iii, p. 257; *Hume & Dav. S. F.* vi, p. 218; *Tweedd. Ibis,* 1878, p. 80; *Anders. Yunnan Exped., Aves,* p. 652; *Hume, Cat.* no. 283; *Oates, B. B.* i, 224; *Hume, S. F.* xi, p. 100 *Oates in Hume's N. & E.* 2nd ed. i, p. 216.

*Bhringa,* Nep.; *Nambong punnong,* Lepch.; *Piadiyapo,* Bhut.

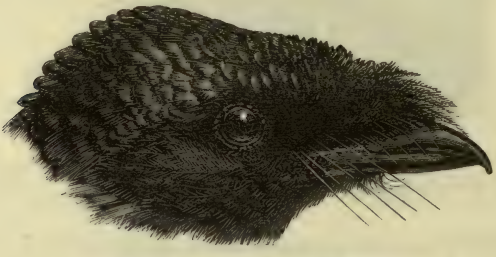

Fig. 98.—Head of *B. remifer.*

*Coloration.* The entire plumage black, the head, neck, throat, and breast glossed with metallic violet, the back and the outer webs of the quills and tail-feathers with metallic blue; under wing-coverts and axillaries tipped with white.

Iris red; bill, legs, and claws black; eyelids plumbeous.

Length to end of middle tail-feathers about 11; tail to end of middle feathers about 5·5; length of lateral tail-feathers up to 21, of which 12 is bare shaft; wing 5·5; tarsus ·8; bill from gape 1·2.

*Distribution.* The Himalayas from Garhwál to Assam up to 5000 feet; thence through the hill-tracts of Assam and throughout Burma to Tenasserim. Davison failed to observe this species south of Amherst, but Bingham procured it in the Thoungyeen valley. It reappears in the mountains of Perak, Sumatra, and Java.

*Habits, &c.* Entirely confined to forest country. This species sallies after insects from the summit of the highest trees. It breeds in May and June, constructing a shallow nest of small twigs and roots in a fork of a branch at a considerable height from the ground. The eggs are pinkish, marked with brownish red, and measure about 1·05 by ·75.

## Genus **DISSEMURUS**, Gloger, 1842.

The genus *Dissemurus* contains the finest members of the Drongo family. The sole species found within our limits varies, however, in dimensions and structure throughout its great range, but is characterized at all times by the great elongation of the lateral tail-feathers, the terminal portion of which is webbed on the outside for a distance of about four inches and twisted upwards. The web on the inner side of the shaft is very narrow. The forehead is tufted with feathers of varying length, birds from the Himalayas and Central India having the tuft quite two inches in length, whereas birds from Southern India and Tenasserim have it less than one inch in length.

### 340. **Dissemurus paradiseus.** *The Larger Racket-tailed Drongo.*

Cuculus paradiseus, *Linn. Syst. Nat.* i, p. 172 (1766).
Lanius malabaricus, *Lath. Ind. Orn.* i, p. 66 (1790).
Edolius grandis, *Gould, P. Z. S.* 1836, p. 5.
Chibia malabaroides, *Hodgs. Ind. Rev.* i, p. 325 (1837).
Edolius paradiseus (*Linn.*), *Blyth, Cat.* p. 201; *Jerd. B. I.* i, p. 435.
Dicrurus (Edolius) paradiseus (*Gm.*), *Horsf. & M. Cat.* i, p. 155.
Dicrurus (Edolius) malabaricus (*Scop.*), *Horsf. & M. Cat.* i, p. 157.
Edolius malabaricus (*Scop.*), *Jerd. B. I.* i, p. 437.
Edolius affinis, *Tytler, Beavan, Ibis,* 1867, p. 323.
Dissemurus malabaroides (*Hodgs.*), *Hume, N. & E.* p. 193; *id. S. F.* iii, p. 101; *Hume & Dav. S. F.* vi, p. 218.
Dissemurus affinis (*Tytler*), *Hume, S. F.* ii, p. 212.
Dissemurus paradiseus (*Linn.*), *Blyth & Wald. Birds Burm.* p. 128; *Sharpe, Cat. B. M.* iii, p. 258; *Tweedd. Ibis,* 1878, p. 80; *Hume & Dav. S. F.* vi, p. 219; *Legge, Birds Ceyl.* p. 399; *Hume, Cat.* no. 285; *Oates, S. F.* x, p. 203; *id. B. B.* i, p. 225; *Barnes, Birds Bom.* p. 156; *Oates in Hume's N. & E.* 2nd ed. i, p. 217.
Dissemurus malabaricus (*Scop.*), *Hume, S. F.* iv, p. 395.
Dissemurus grandis (*Gould*), *Hume, Cat.* no. 284; *Oates, S. F.* viii, p. 166; *Barnes, Birds Bom.* p. 156; *Hume, S. F.* xi, p. 101.

*The Large Racket-tailed Drongo, The Malabar Racket-tailed Drongo,* Jerd.; *Bhimraj, Bhring-raj,* Hind.; *Kalgia,* Nep.; *Tinka passala poliyadu,* Tel.; *Hati* of the Gonds; *Parvak* or *Parvok-pho,* Lepch.; *Kate-ougal,* Mahr.; *Maha-Kawuda, Erattu valem Kuruvi,* Tam. in Ceyl.; *Hnet-dau,* Burm.

*Coloration.* The whole plumage black, glossed with blue, except on the inner webs of the quills, the throat, lower abdomen, and vent; the under wing-coverts and axillaries frequently tipped with white.

Iris red; bill, feet, and claws black; iris brown in the young.

Length up to 26; middle tail-feathers 5·5 to 6·5; outer tail-feathers up to 20; wing 5·8 to 7; tarsus 1·1; bill from gape 1·5 to 1·8; crest up to 2.

I believe that it is impossible to separate the larger bird from the Himalayas and Central India from the smaller one from Southern India and Tenasserim, as the two forms are connected together by birds from Khandesh on the one hand and from Pegu on the other. The question has been fully discussed by Hume and Sharpe, the former separating the two races, and the latter uniting them.

*Distribution.* The western parts of India from Godhra in the Panch Máháls to Travancore; Ceylon; the Nellore ghâts; the Tributary Mehâls of Orissa; Chutia Nagpur; Sambalpur and Raipur; lower Bengal and the Sundarbans; the Himalayas from Kumaun to Assam, and thence through Burma to the extreme south of Tenasserim. In the latter locality this Drongo is found in a small form, which becomes still further reduced in size in the Malay peninsula. This small Malay race has been named *D. platurus*.

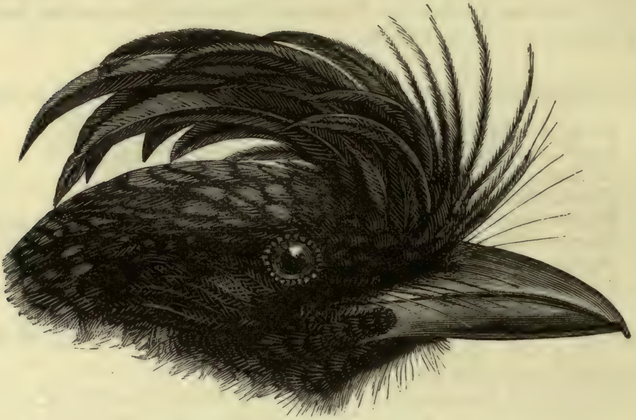

Fig. 99.—Head of *D. paradiseus.*

*Habits, &c.* This species inhabits forests and well-wooded localities, and is more sociable than the other Drongos, being found either in pairs or in parties of four or five. It hawks after insects both from lofty stations and from points near the ground. It has a very fine song. The breeding-season lasts from April to June. The nest, which is constructed rather flimsily of twigs, is placed high up in branches of trees. The eggs are white or pinkish, marked with reddish brown and neutral tint, and measure about 1·15 by ·82.

## Family CERTHIIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles perfectly smooth, or with a simple notch in the upper one; hinder aspect of tarsus bilaminated, the laminæ entire and smooth; wing with ten primaries; tongue non-tubular; nostrils clear of the line of the forehead, the space between the nostril and the edge of the mandible less than the space between the nostril and culmen; plumage of the nestling resembling that of the adult female, but paler; nostrils bare; rictal bristles absent.

The *Certhiidæ* comprise the Creepers and the Wrens, two groups which are closely allied to each other. With the exception of *Tichodroma* all the *Certhiidæ* found in India are resident species and have but one moult a year.

The *Certhiidæ* have the feathers of the forehead short and closely set together, and they have no hairs over the nostrils nor any vestige of rictal bristles. The wing varies in shape, being sometimes, as in *Salpornis*, extremely pointed and sometimes very blunt and rounded, as in the true Wrens. The toes and claws in all are much lengthened. The number of tail-feathers varies from twelve to six in this family.

The *Certhiidæ* are found over a considerable portion of the world, and they are probably a very ancient group.

### *Key to the Genera.*

*a*. Tail of 12 feathers.
  *a*′. Tail composed of stiff, pointed feathers .. CERTHIA, p. 328.
  *b*′. Tail composed of soft, rounded feathers.
    *a*″. First primary not more than a quarter the length of the second .......... SALPORNIS, p. 332.
    *b*″. First primary equal to, or longer than, half the second.
      *a*‴. Wing more than four times the length of the tarsus .......... TICHODROMA, p. 334.
      *b*‴. Wing less than three times the length of the tarsus.
        $a^4$. Tail and wing of much the same length ...................... SPHENOCICHLA, p. 335.
        $b^4$. Tail very much shorter than the wing.
          $a^5$. Tail less graduated, the outer feather being three-quarters the length of the tail ...... ANORTHURA, p. 337.

    $b^5$. Tail more graduated, the outer feather being only half the length of the tail .......... Elachura, p. 339.
b. Tail of 10 feathers ...................... Urocichla, p. 340.
c. Tail of 6 feathers ...................... Pnoepyga, p. 342.

## Genus **CERTHIA**, Linn., 1766.

The genus *Certhia* contains six Indian species, which are chiefly residents on the Himalayas, or migratory to a slight extent from higher to lower altitudes or *vice versâ*.

*Certhia* appears to have only an autumn moult, but Biddulph (Ibis, 1881), with regard to *C. himalayana*, speaks of a winter and a summer plumage. A large series of skins of this species, however, does not support his assertion, and no European writer has noticed the fact in regard to *C. familiaris*. The young are coloured like the adult, but they often have on the lower plumage some obsolete cross-bars, especially on the sides of the breast.

The Tree-Creepers, as their name denotes, are found climbing the trunks and branches of trees. They feed entirely on insects.

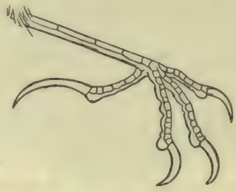

Fig. 100.—Foot of *Certhia*.

They lay spotted eggs, which are deposited in a nest made of twigs, grass, and moss in a hole in a tree or behind a piece of detached bark.

In *Certhia* the bill is sometimes as long as the head, more frequently rather shorter, slender, and curved downwards. The nostrils are long narrow slits. The wing is rounded, the first primary being about half the length of the second, which, with the third, falls short of the tip of the wing. The tail is longer than the wing, and composed of twelve very stiff and pointed feathers, and greatly graduated. The tarsus is scutellated, and the toes and claws are extremely long.

### *Key to the Species.*

a. Tail distinctly cross-barred throughout...... *C. himalayana*, p. 329.
b. Tail plain or nearly so.
  a′. Lower plumage, except the under tail-coverts, entirely white .............. *C. hodgsoni*, p. 329.
  b′. Chin, throat, and centre of breast and abdomen white; remainder of lower plumage fulvous-brown .............. *C. nepalensis*, p. 330.

c'. Whole lower plumage earthy brown .... *C. discolor*, p. 331.
d'. Chin, throat, and breast buff; remainder of lower plumage earthy brown.......... *C. manipurensis*, p. 331.
e'. Chin and throat whitish; centre of breast and abdomen fulvous; remainder of lower plumage deep ferruginous.............. *C. stoliczkæ*, p. 332.

### 341. **Certhia himalayana.** *The Himalayan Tree-Creeper.*

Certhia himalayana, *Vig. P. Z. S.* 1831, p. 174; *Blyth, Cat.* p. 188; *Horsf. & M. Cat.* ii, p. 717; *Jerd. B. I.* i, p. 380; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 25; *Jerd. Ibis*, 1872, p. 19; *Hume, N. & E.* p. 160; *Cock & Marsh. S. F.* i, p. 351; *Hume, S. F.* v, p. 78; *id. Cat.* no. 243; *Biddulph, Ibis*, 1881, p. 50; *Gadow, Cat. B. M.* viii, p. 327; *Oates in Hume's N. & E.* 2nd ed. i, p. 220.

*Coloration.* Upper plumage blackish striped with fulvous, the wing-coverts tipped with the same; rump and upper tail-coverts strongly tinged with ferruginous; tail brown, regularly cross-barred with black; wings dark brown, all the quills, except the first four, with a broad fulvous band, above and below which the feathers are blackish; the quills also tipped fulvous, and with a subterminal band on the outer webs near the tip; a short eyebrow fulvous; ear-coverts black; chin and upper throat pure white; remainder of lower plumage pale smoky brown.

Upper mandible black; lower mandible fleshy; legs, feet, and claws fleshy; iris dark brown (*Davison*).

Length about 6; tail 2·8; wing 2·7; tarsus ·55; bill from gape ·9.

*C. tæniura*, found in Samarkand and Central Asia, has a very much longer bill.

*Distribution.* Throughout the N.W. Himalayas from Almora to Hazára, and through the greater part of Kashmir to Gilgit. This bird is found at all elevations, according to season, from the plains up to 12,000 feet. In Gilgit it is found below 6000 feet in winter, and in summer it retreats to the forests above. It extends to Hunza and Chitral in the north, and Wardlaw Ramsay met with it further south in Afghanistan.

*Habits, &c.* Nests in holes in high trees some forty feet from the ground. The eggs are white, with numerous red spots, and measure ·6 by ·45. The nests have been found at Murree and in Kashmir, but in what months is not recorded.

### 342. **Certhia hodgsoni.** *Hodgson's Tree-Creeper.*

Certhia familiaris, *Linn. apud Hume & Henders. Lah. to Yark.* p. 180.

Certhia hodgsoni, *Brooks, J. A. S. B.* xli, pt. ii, p. 74 (1872); *Hume, N. & E.* p. 160; *Brooks, S. F.* iv, p. 273; *Hume, S. F.* v, pp. 73, 78; *id. Cat.* no. 243 bis; *Oates in Hume's N. & E.* 2nd ed. i, p. 220.

*Coloration.* Upper plumage and the sides of the head and neck dark brown streaked with rufous, with which are intermingled other streaks of black and white; wing-coverts tipped with pale fulvous; rump and upper tail-coverts ferruginous; tail reddish brown, obsoletely barred near the tip; wings dark brown, with a pale fulvous band across all the quills, except the first four, and another blackish band above and below it; most of the quills tipped white, and the later ones with a fulvous streak near the end of the outer web; a white supercilium; forehead, cheeks, and the whole lower plumage white, the under tail-coverts tinged with fulvous.

Iris brown; bill, legs, and feet flesh-colour (*Hume Coll.*).

Length rather more than 5; tail 2·6; wing 2·6; tarsus ·55; bill from gape ·75.

This species, closely allied to the English Creeper, *C. familiaris*, may be distinguished from it by the coloration of the fourth primary. In *C. familiaris* the fourth primary is marked with fulvous like the others; in *C. hodgsoni* the fourth primary is unmarked, and the bill is also longer.

*Distribution.* Kashmir, where, according to Brooks, its discoverer, this Tree-Creeper occurs sparingly in the pine-woods near the snows. Biddulph and Scully met with it in Gilgit and Astor at about 10,000 feet in June and July.

*Habits, &c.* Captain Cock took several nests of this bird at Gulmurg and Sonamurg in June. The eggs are very densely spotted and measure about ·62 by ·48.

### 343. **Certhia nepalensis.** *The Nepal Tree-Creeper.*

Certhia nipalensis, *Hodgs., Blyth, J. A. S. B.* xiv, p. 581 (1845); *Blyth, Cat.* p. 188; *Horsf. & M. Cat.* ii, p. 718; *Jerd. B. I.* i, p. 381; *Blanf. J. A. S. B.* xli, pt. ii, p. 56; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 157; *Hume, S. F.* v, pp. 76, 78; *id. Cat.* no. 244; *Gadow, Cat. B. M.* viii, p. 329.
Certhia mandellii, *Brooks, J. A. S. B.* xlii, pt. ii, p. 256 (1873).

*Coloration.* Resembles *C. hodgsoni* in general coloration, but is blacker above; the tail is plain brown; cheeks, chin, throat, breast, and upper abdomen white, the remaining lower plumage fulvous-brown.

Iris brown; legs horny; bill blackish above, white below (*Blanford*).

Length about 5·5; tail 2·7; wing 2·8; tarsus ·65; bill from gape ·75.

*Distribution.* Nepal, Sikhim, and Bhutan, extending into the Nága Hills. Blanford found this species from 8000 to 13,000 feet in the pine-woods of Northern Sikhim, associating with flocks of *Lophophanes* and *Phylloscopi*.

Hodgson figures only *C. discolor*, but in his collection are specimens also of *C. nepalensis*, and both species bear the same number.

### 344. **Certhia discolor.** *The Sikhim Tree-Creeper.*

Certhia discolor, *Blyth, J. A. S. B.* xiv, p. 580 (1845); *id. Cat.* p. 188; *Horsf. & M. Cat.* ii, p. 718; *Jerd. B. I.* i, p. 381; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, pp. 70, 194; *Hume, S. F.* v, pp. 75, 78; *id. Cat.* no. 245; *Oates, B. B.* i, p. 135; *Hume, S. F.* xi, p. 85.

Certhia nipalensis, *Hodgs. apud Brooks, J. A. S. B.* xlii, pt. ii, p. 255.

*Saddyer-pho*, Lepch.

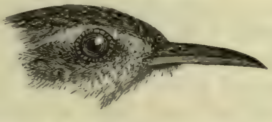

Fig. 101.—Head of *C. discolor.*

*Coloration.* Upper plumage blackish brown, streaked with fulvous; rump and upper tail-coverts bright ferruginous; tail reddish brown with red shafts; wings dark brown with a pale fulvous band across all the quills except the first four, and another blackish band above and below it; most of the quills tipped white, and the later ones with a fulvous streak near the end of the outer web; lower plumage entirely earthy brown; under tail-coverts ferruginous; a cheek-stripe rufous, varying in tint; under wing-coverts and axillaries white.

Iris dark brown; bill dark horn, pale below; legs pale brown (*Wardlaw Ramsay*).

Length 6; tail 3; wing 2·7; tarsus ·65; bill from gape ·75.

*Distribution.* Nepal, Sikkim, and Bhutan as far at least as the Daphla Hills; also across the Brahmaputra valley in the Nága and East Nága hills. Wardlaw Ramsay procured this species in Karennee, and his specimens are inseparable from Sikhim birds. It is noteworthy that Hume obtained the distinct *C. manipurensis* in Manipur.

### 345. **Certhia manipurensis.** *Hume's Tree-Creeper.*

Certhia manipurensis, *Hume, S. F.* x, p. 151 (1881), xi, p. 86.

*Coloration.* Resembles *C. discolor.* Differs in having the chin, throat, and upper part of breast pure buff, and the lower abdomen buffy grey. The bill is also slightly longer.

Legs and feet pale fleshy brown; upper mandible blackish; lower mandible very pale fleshy pink; iris hazel (*Hume*).

Length about 6; tail 2·7; wing 2·7; tarsus ·65; bill from gape ·8.

The coloration of the lower plumage of the Creepers is an excellent differential character, being in most, if not all cases correlated with a distinct geographical distribution, so that *C. manipurensis* may be accepted in my opinion as a valid species.

*Distribution.* The Eastern hills of Manipur, where this species was obtained by Hume at elevations of from 5000 to 6000 feet. He states that it was not very uncommon, though by no means abundant.

### 346. **Certhia stoliczkæ.** *Stoliczka's Tree-Creeper.*

Certhia stoliczkæ, *Brooks, J. A. S. B.* xlii, pt. ii, p. 256 (1873); *Hume, S. F.* v, pp. 77, 78; *id. Cat.* no. 244 bis.

*Coloration.* Forehead, crown, nape, back, and ear-coverts black streaked with fulvous; rump and upper tail-coverts ferruginous; tail pale reddish brown with reddish shafts; wing-coverts tipped with fulvous; quills dark brown, all but the first four with a pale fulvous band, above and below which the feathers are blackish; the quills tipped with buff, and with a subterminal band of the same colour on the outer webs; chin and throat whitish; feathers round the eye, a supercilium, and cheeks buff; centre of breast and abdomen pale fulvous; sides of the breast and abdomen, vent, and under tail-coverts deep ferruginous; under wing-coverts and axillaries pale fulvous.

Length about 6; tail 3·2; wing 2·8; tarsus ·75; bill from gape ·7.

*Distribution.* Sikhim and Bhutan.

## Genus **SALPORNIS**, Gray, 1847.

The genus *Salpornis* contains only one Indian and one African species, and differs in many remarkable respects from *Certhia*, although bearing a great general resemblance to it. It has an extremely long, pointed wing, with a minute first primary, and the second primary reaches to the tip of the wing. The foot is also differently shaped. But the most remarkable feature about *Salpornis* is that it builds a cup-shaped nest *on* a branch of a tree, thus deviating entirely from the habits of all other Creepers. The position of this bird requires further investigation.

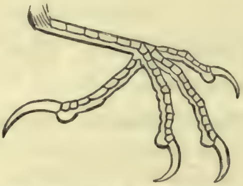

Fig. 102.—Foot of *Salpornis.*

*Salpornis* has a bill similar in shape to that of *Certhia*, but much longer. The tarsus is short, and the hind claw is much shorter than the hind toe. The tail is composed of twelve soft rounded feathers, and nearly square.

The sexes are alike, and the young are similar to the adult, and there is nothing to lead to the belief that there is any spring moult.

### 347. Salpornis spilonota. *The Spotted-Grey Creeper.*

Certhia spilonota, *Frankl. P. Z. S.* 1831, p. 121.
Salpornis spilonota (*Frankl.*), *Jerd. B. I.* i, p. 382; *Blanf. J. A. S. B.* xxxviii, p. 170; *Adam, S. F.* i, p. 375; *Ball, S. F.* ii, p. 397; *Hume, Cat.* no. 246; *Davidson, S. F.* x, p. 300; *Gadow, Cat. B. M.* viii, p. 330; *Barnes, Birds Bom.* p. 139; *Oates in Hume's N. & E.* 2nd ed. i, p. 220.

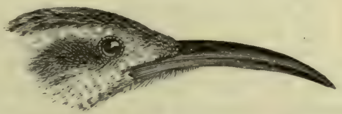

Fig. 103.—Head of *S. spilonota.*

*Coloration.* Lores and a line behind the eye black; above these a broad white supercilium; ear-coverts, cheeks, chin, and throat white; crown ashy brown streaked with white; the whole upper plumage and wing-coverts black spotted with white; quills dark brown, spotted with white on both webs and partially barred with blackish; tail black, barred with white, the bars interrupted at the shaft, and the middle feathers ashy down the middle; lower plumage pale fulvous barred with black.

The young appear to resemble the adults.

Legs and feet blackish plumbeous; bill blackish, light below; iris dark brown (*Hume*).

Length about 6; tail 2·3; wing 3·5; tarsus ·65; bill from gape 1.

*Distribution.* Throughout a considerable portion of the plains of India, from the foot of the Himalayas southwards to near the Kistna river. On the west the limits of this species appear to be Gurgaon, Sambhar, Ajmere, and Abu. Further south it has been met with at Dhulia in Khandesh, and Blanford records it from Chanda, Sironcha, and the Godávari valley. Ball obtained it at Sambalpur and at various localities in Chutia Nagpur, and I have seen a specimen collected in Behar, but in what particular part of it was not recorded. Our knowledge of the distribution of this peculiar bird is therefore far from satisfactory.

*Habits, &c.* Blanford writes:—"These birds keep to the largest trees, running round the stems in all directions and flying with a steady flight, not unlike that of a Woodpecker, but swifter and more elegant. They have a whistling note." Mr. Cleveland found the nest in Gurgaon on the 16th April. It was placed on a horizontal bough of a tree and attached to a vertical shoot. It was cup-shaped, and composed of bits of leaf-stalk and leaves, chips of bark, and the dung of caterpillars, bound together by cobwebs; it was very firm and elastic. The nest contained two young birds and one egg. This latter was greenish white, with a ring of blackish-brown specks round the large end, and a few specks over the remainder of the shell. It measured ·68 by ·53.

## Genus **TICHODROMA**, Illiger, 1811.

The genus *Tichodroma* contains only the well-known Wall-Creeper, which is found as a winter visitor to the Himalayas and more rarely to the neighbouring plains.

The Wall-Creeper, in addition to a complete autumn moult, has a partial one in the spring by which the colour of the chin and throat is changed. The sexes are said to differ slightly from each other in summer, but I have not been able to examine summer-plumaged females. The young birds resemble the adults in winter plumage very closely, but they have more spots on the wings, and these of a rufous colour instead of white, and they have less crimson on the wing.

*Tichodroma* has a very long, slender, and almost straight bill, longer than the head, and the nostrils are long narrow slits. The wing is extremely large, but rounded, not pointed, the first primary being about half the length of the second, and the second and third falling short of the tip of the wing. The tail, composed of twelve soft feathers, is about half the length of the wing, and rounded very slightly. The tarsus is smooth, and the hind claw longer than its toe.

### 348. **Tichodroma muraria.** *The Wall-Creeper.*

Certhia muraria, *Linn. Syst. Nat.* i, p. 184 (1766).
Tichodroma muraria (*Linn.*), *Blyth, Cat.* p. 189; *Horsf. & M. Cat.* ii, p. 719; *Jerd. B. I.* i, p. 383; *Hume & Henders. Lah. to Yark.* p. 181; *Scully, S. F.* iv, p. 136; *Hume, Cat.* no. 247; *Gadow, Cat. B. M.* viii, p. 331.

*The Red-winged Wall-creeper*, Jerd.; *Dewal Gaiyuk,* Pushtu; *Saggorsa-lamdong-pho,* Lepch.; *Suppurotsu,* Chamba.

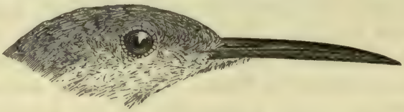

Fig. 104.—Head of *T. muraria.*

*Coloration.* In winter plumage the forehead, crown, nape, and ear-coverts are brown; a ring round the eye and a short supercilium white; lores mixed ashy and brown; hind neck, back, and scapulars ashy grey; rump and upper tail-coverts iron-grey; lesser wing-coverts bright crimson; the outer greater coverts and the primary-coverts brown on the inner and dull crimson on the outer webs; the inner greater coverts and the tertiaries brown, tinged with ashy; winglet brown; quills black tipped with whitish, the outer webs of the primaries and secondaries, except those of the first three, with the basal half of the outer webs crimson; the first four large primaries each with two large white spots on the inner webs; tail black tipped with ashy, which gradually changes to white and increases in amount towards the outer feathers; chin and throat pure white; remainder of lower plumage ashy slate; the under tail-coverts fringed with white; axillaries crimson.

In summer the crown of the head becomes grey and the chin and throat black. The female is said to have a smaller extent of the throat black than the male.

The young resemble the adults in winter plumage, but there is less crimson on the wing, and all the quills have each two rufous spots on the inner web. These spots gradually disappear, except on the first four large primaries, where they eventually turn white.

Bill black; iris blackish brown; legs, feet, and claws black (*Scully*).

Length nearly 7; tail 2·3; wing 4; tarsus ·9; bill from gape 1·3.

*Distribution.* Throughout the Himalayas from Bhutan to the extreme North-west. This species is merely a winter visitor, and is found from October to March at all elevations, but generally above 2500 feet. It, however, sometimes descends to the plains, Hume recording one instance when he procured it at Etáwah on the Jumna river, and I have seen it from the Bhutan Doars and Dehra. In spring it retreats north, and no doubt breeds in Tibet and other portions of Central Asia. It inhabits a considerable portion of Europe and Asia, and is said to be found in N. Africa.

*Habits, &c.* The Wall-Creeper frequents cliffs and rocks, about which it climbs with great ease in search of its food, which consists chiefly of spiders and insects. It does not appear to breed in India. Its nest consists of moss, grass, and hair worked up together in a crevice of a rock, and it lays from three to five eggs, which are white freckled with reddish brown and some secondary shell-marks of violet-grey.

## Genus **SPHENOCICHLA**, Godwin-Austen and Walden, 1875.

The genus *Sphenocichla* contains two remarkable birds which, following Sharpe and having regard also to the entire absence of rictal bristles, I do not hesitate to place with the Wrens. They are of strong, heavy build, with large feet. Unfortunately nothing is known of their habits, and we have nothing but structure to guide us, and I am of opinion that the absence of rictal bristles, a character possessed by so few birds of this section, is of more importance than any other.

In *Sphenocichla* the sexes are alike, and, judging from a considerable series of *S. humii*, the young do not differ from the adults. The bill is perfectly conical and sharp-pointed when viewed laterally, about the length of the head or a little shorter; the wing is short and rounded; the tail of twelve feathers is greatly graduated, the outer feather reaching only over two thirds of the tail; the tarsi and feet are very strong.

### *Key to the Species.*

| | |
|---|---|
| *a.* Feathers of the throat and breast black, with pale shafts | *S. humii*, p. 336. |
| *b.* Feathers of the throat and breast with a submarginal white border | *S. roberti*, p. 336. |

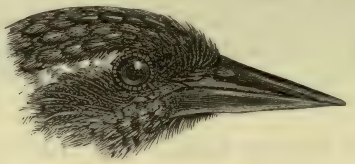

Fig. 105.—Head of *S. humii*.

### 349. **Sphenocichla humii.** *Hume's Wedge-billed Wren.*

Heterorhynchus humei, *Mandelli, S. F.* i, p. 415 (1873); *Hume, Cat.* no. 383 bis.

Sphenocichla humii (*Mand.*), *Sharpe, Cat. B. M.* vi, p. 283 (part.).

*Coloration.* Forehead and sides of the head blackish, with white shafts; the whole upper plumage and wing-coverts golden brown, each feather with a pale shaft and very distinctly bordered with black, and the feathers of the back, rump, scapulars, and coverts also cross-barred with black; wings and tail dull golden brown cross-barred with black; sides of the neck black; a broad supercilium grey, reaching to the nape and there terminating in a number of drops extending over the sides of the neck; chin, throat, breast, and sides of the body deep black with pale whitish shafts; centre of the abdomen ashy; vent, flanks, and under tail-coverts golden brown, each feather with a pale shaft and distinctly edged with black.

In the dry state the legs and claws are dark brown, the bill bluish horny, paler below.

Length about 7; tail 2·9; wing 3; tarsus 1·1; bill from gape 1·05.

*Distribution.* Native Sikhim only, so far as is at present known, from which place there is a considerable series in the British Museum, procured by Mandelli's men, and preserved in the Hume Collection. Nothing whatever is known about the habits of this bird.

### 350. **Sphenocichla roberti.** *Robert's Wedge-billed Wren.*

Sphenocichla roberti, *Godw.-Aust. & Wald. Ibis*, 1875, p. 251; *Hume, S. F.* iv, p. 217; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 198, pl. vi.

Stachyrirhynchus roberti (*Godw-Aust. & Wald.*), *Hume, S. F.* iv, p. 217, note.

Heterorhynchus roberti (*Godw.-Aust. & Wald.*), *Hume, Cat.* no. 383 ter.

Heterorhynchus humii, *Mand. apud Hume, S. F.* xi, p. 135.

*Coloration.* The whole upper plumage pale golden brown, each feather margined with black and subterminally tipped with ashy; the wing-coverts, back, rump, upper tail-coverts, wings, and tail cross-barred with black; ear-coverts rufous with paler shafts; a broad supercilium composed of black feathers with subterminal white tips; chin, throat, and sides of the neck, breast, and upper abdomen ashy brown edged with black, inside this bordered very distinctly and evenly with white; remainder of the lower plumage golden brown with whitish subterminal spots.

In the dry skin the legs are dark brown; the bill brown with the greater part of the lower mandible yellowish.

Length about 7; tail 2·6; wing 2·9; tarsus 1·1; bill from gape 1·05.

*Distribution.* Discovered by Mr. Robert on the Hemeo Peak, North Cachar hills. This species has also been procured in the Manipur hills according to Godwin-Austen.

## Genus **ANORTHURA**, Rennie, 1833.

The genus *Anorthura* contains two Indian birds which may be considered as permanent races of the Common English Wren. They inhabit the Himalayas, and are constant residents there.

In *Anorthura* the sexes are alike, and the young bird is quite like the adult. The bill is very slender and feeble, and about half the length of the head; the wing is extremely short and rounded, the first primary being about two thirds the length of the second; the tail, of twelve feathers, is shorter than the wing and not very much graduated, the outer feather being about three quarters the length of the tail; the tarsus and the claws are long and slender; and the plumage is barred in both species.

The Wrens frequent underwood, creeping about, as a rule, and flying but little. They build massive nests and lay numerous eggs, which are usually spotted but occasionally white.

*Key to the Species.*

*a.* Plumage dark rufous-brown; hind toe and claw strong, ·6 in length .................... *A. nepalensis*, p. 337.
*b.* Plumage pale rufous-brown; hind toe and claw weak, ·55 in length ...................... *A. neglecta*, p. 338.

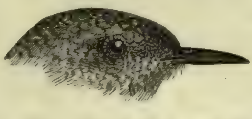

Fig. 106.—Head of *A. nepalensis.*

### 351. **Anorthura nepalensis.** *The Nepal Wren.*

Troglodytes nipalensis, *Hodgs., Blyth, J. A. S. B.* xiv, p. 589 (1845); *id. Cat.* p. 158; *Horsf. & M. Cat.* i, p. 181; *Jerd. B. I.* i, p. 491;

*Blanf. J. A. S. B.* xli, pt. ii, p. 55; *Hume, Cat.* no. 333; *Brooks, S. F.* viii, p. 470.

Anorthura nepalensis (*Hodgs.*), *Sharpe, Cat. B. M.* vi, p. 277.

*Marchok-pho,* Lepch.

*Coloration.* Forehead, crown, nape, and upper back dark rufous-brown; the remaining upper plumage, the tail, wing and its coverts the same, closely cross-barred with black; lores, sides of the head, and a short supercilium mingled rufous-ashy and brown; the whole lower plumage brown, greatly infuscated on the vent and sides of the body, every portion closely cross-barred with black, and with a tinge of fulvous suffusing the whole; the under tail-coverts with a few whitish dots.

The young resemble the adults, but at first have the upper plumage less barred.

Bill brown; legs horny brown; iris hazel-brown (*Jerdon*); legs pale reddish brown (*Jerdon*).

Length about 3·7; tail 1·3; wing 2·1; tarsus ·7; bill from gape ·7.

*Distribution.* I have examined specimens of this species from Sikhim and Nepal only. At Simla and in the Sutlej valley the next species occurs. The Nepal Wren is found at great elevations, Blanford stating that in Sikhim it was common above 10,000 feet.

*Habits, &c.* Blanford observed this species in Sikhim hunting over loose moss-covered stones, constantly entering the crevices between the blocks and emerging again at a considerable distance. He usually saw the birds in small families, three or four together, hunting on the ground and low bushes and with the same predilection for exploring hollows under stones. The nest of this species has not yet been found.

### 352. **Anorthura neglecta.** *The Kashmir Wren.*

Troglodytes nipalensis, *Hodgs. apud Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 32; *Hume, N. & E.* p. 218; *id. & Henders. Lah. to Yark.* p. 187.

Troglodytes neglectus, *Brooks, J. A. S. B.* xli, pt. ii, p. 328 (1872); *Hume, S. F.* iv, p. 492; *id. Cat.* no. 333 bis; *Biddulph, Ibis,* 1881, p. 52; 1882, p. 271; *Scully, Ibis,* 1881, p. 437.

Anorthura neglecta (*Brooks*), *Sharpe, Cat. B. M.* vi, p. 278; *Oates in Hume's N. & E.* 2nd ed. i, p. 221.

*Coloration.* Resembles *A. nepalensis* in the distribution of colours and markings, but is markedly paler and smaller, with much weaker legs and claws, the hind toe and claw measuring ·55 in length as against ·6 in *A. nepalensis.*

This bird can only be considered a small pale form of *A. nepalensis*, but as the small size and weak feet are correlated with a paler plumage it seems entitled to separation.

Bill brown, dusky above; feet dusky; gape fleshy; iris brown (*Scully*).

Length about 3·5; tail 1·2; wing 1·8; tarsus ·65; bill from gape ·6.

Both this species and *A. nepalensis* differ from the English Wren in being darker coloured and in being barred on nearly every portion of the plumage.

*Distribution.* Throughout Kashmir and the Himalayas to Simla. I have seen no specimens of Wrens collected between Simla and the Nepal frontier and cannot say which of the two species occurs in that portion of the Himalayas.

*Habits, &c.* Brooks found two nests of this Wren in Kashmir in May and June—one in the roots of a large fallen pine, the other in the foliage of a moss-grown tree. The nests were made of moss and fibres and lined with feathers. The eggs in the first nest were white spotted with red, and in the second pure white without any spots. They measured about ·66 by ·5.

## Genus **ELACHURA**, n. gen.

The Wren which forms the type of this new genus differs conspicuously from *Anorthura* in having a much stouter bill and a more graduated tail. The plumage is moreover spotted, not barred. According to Jerdon, it appears that Blyth proposed to separate this bird under the generic name *Spiloptera*; but this name was preoccupied twice over in Entomology before the date of Jerdon's work and consequently cannot be used for the purpose.

In *Elachura* the sexes are alike and the young are no doubt similar to the adults in plumage. The bill is about half the length of the head and stout. The wing is very short and rounded and the first primary is about two thirds the length of the second. The tail is much graduated, the outer feather reaching only to the middle of the tail, and the tarsus, toes, and claws are long. The only species known appears to be resident and incapable of any lengthened flight.

### 353. **Elachura punctata.** *The Spotted Wren.*

Troglodytes punctatus*, *Blyth, J. A. S. B.* xiv, p. 589 (1845); *id. Cat.* p. 158; *Jerd. B. Ind.* i, p. 492; *Hume, S. F.* ii, p. 525; *id. S. F.* v, p. 238; *id. Cat.* no. 334.
Troglodytes formosus, *Wald. Ibis*, 1874, p. 91.
Anorthura formosa (*Wald.*), *Sharpe, Cat. B. M.* vi, p. 279.

*The Spotted Wren*, Jerd.; *Marchok-pho*, Lepch.

*Coloration.* The upper plumage, wing-coverts, sides of the head, and neck dark brown, tinged with rufous on the lower part of the rump and the upper tail-coverts, and each feather with a small subterminal white spot bordered above and below with black; inner webs of quills brown, the outer barred with chestnut and black; tail reddish brown, cross-barred with black; lower plumage pale fulvous, inclining to rufous on the abdomen and flanks, each feather with a triangular white spot, above which is a smaller black one, and all the feathers delicately vermiculated with black.

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* As above stated, Blyth proposed to constitute a new genus for this species. At all events the bird is not congeneric with the European Wren to which Brehm applied the name '*punctatus*,' and therefore Blyth's specific name may be retained in preference to Walden's.

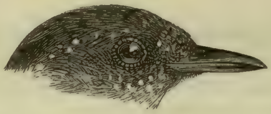

Fig. 107.—Head of *E. punctata.*

Bill horny brown; legs pale brown; iris brown (*Jerdon*).

Length about 4·5; tail 1·2; wing 1·8; tarsus ·65; bill from gape ·6.

*Distribution.* Confined to Sikhim, where this Wren appears to be found at high elevations only.

### Genus **UROCICHLA**, Sharpe, 1881.

The genus *Urocichla* contains two Wrens which may be recognized by their short tail of ten feathers. Their upper plumage is squamated or scale-like. They are resident species and owing to their very short, rounded wings they probably are incapable of flying far.

In *Urocichla* the bill is rather stout and very similar to that of *Elachura*; the tail is rounded, the outer feather reaching to about three quarters the length of the middle pair, and the tarsus and toes are long. The sexes are alike and the young somewhat resemble the adult.

*Key to the Species.*

| | |
|---|---|
| *a.* Lower plumage plain rufous; middle of abdomen white .................... | *U. longicaudata,* p. 340. |
| *b.* Lower plumage rufous, variegated with black and white bars ................ | *U. caudata,* p. 341. |

### 354. **Urocichla longicaudata.** *The Long-tailed Wren.*

Pnoepyga longicaudata, *Moore, P. Z. S.* 1854, p. 74; *id. & Horsf. Cat.* i, p. 398; *Jerd. B. I.* i, p. 490; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 101; xliii, pt. ii, p. 178; *Hume, Cat.* no. 332.

Pnoepyga chocolatina, *Godw.-Aust. & Wald. Ibis,* 1875, p. 252; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 195; *Hume, S. F.* iv, p. 218; *id. Cat.* p. 332 bis; *id. S. F.* xi, p. 120.

Urocichla longicaudata (*Moore*), *Sharpe, Cat. B. M.* vi, p. 263.

*The Long-tailed Hill-Wren,* Jerd.

*Coloration.* Forehead, crown, nape, back, and the sides of the neck olive-brown, each feather with a narrow brown or blackish margin; rump, upper tail-coverts, and tail olive-brown with a rufous tinge; coverts and wings brown, with the greater part of the outer webs chestnut-brown; lores, cheeks, and ear-coverts deep ashy; the whole lower plumage ferruginous, the feathers of the throat and breast with numerous small brown specks, most conspicuous in newly-moulted birds; middle of the abdomen white.

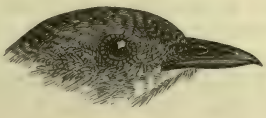

Fig. 108.—Head of *U. longicaudata.*

The young bird is uniform rufous above, without any margins to the feathers, and the lower plumage is always, from the earliest age, like that of the adult. The brown margins commence to appear almost at once, but some months elapse before the upper plumage presents the squamated appearance of the adult.

Iris red; bill black; legs brown (*Cockburn*).

Length about 4·5; tail 2; wing 2·1; tarsus ·8; bill from gape ·6.

*Distribution.* Shillong and Cherra Poonjee in the Khási hills. This bird is not known to occur elsewhere, and its reputed occurrence in Afghanistan and Sikhim is erroneous.

### 355. **Urocichla caudata.** *The Tailed Wren.*

Tesia caudata, *Blyth, J. A. S. B.* xiv, p. 588 (1845).
Pnoepyga caudata (*Blyth*), *Blyth, Cat.* p. 179; *Horsf. & M. Cat.* i, p. 181; *Jerd. B. I.* i, p. 490; *Hume, Cat.* no. 331; *Sharpe, Cat. B. M.* vi, p. 305.
Anura caudata (*Blyth*), *Hume, N. & E.* p. 218.
Urocichla caudata (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 222.

*The Tailed Hill-Wren*, Jerd.

*Coloration.* Lores and sides of the head grey; the whole upper plumage olive-brown, the feathers with terminal black edges and faint shaft-streaks; wings and their coverts chestnut-brown; tail rufous-brown; chin and throat bright chestnut; breast paler chestnut, each feather with a black centre and tip; sides of the body the same; abdomen black, each feather with a white shaft-streak, in most cases hidden, and a large subterminal square white spot.

The young bird is like the adult, but has the black and white marks faint and indistinct.

Bill blackish; legs brown; iris brown (*Jerdon*).

Length nearly 4; tail 1·3; wing 1·9; tarsus ·75; bill from gape ·5.

*Distribution.* Sikhim, at considerable altitudes. Hodgson's plate of this species does not bear any remarks of his own on the reverse, and I have found this absence of remarks, as a rule, to indicate that the bird from which the plate was taken was procured in Sikhim and not in Nepal. In these cases, instead of Hodgson's remarks in English, there are some notes and measurements recorded in Hindustani, probably by some native assistant.

*Habits, &c.* I can find no notes from Hodgson's pen on the nidification of this species, although he figures the nest. Hume, however, informs us that, according to Hodgson, this bird builds a deep cup-shaped nest about the roots of trees or in a hole in fallen timber; the nest is a dense mass of moss and moss-roots, lined with the latter. The eggs, four or five in number, are spotless white and measure ·75 by ·54.

## Genus **PNOEPYGA**, Hodgs., 1845.

The genus *Pnoepyga* contains two Wrens which are characterized by an extremely short tail of only six feathers; this short tail is, moreover, entirely concealed from view by the long and very ample rump-feathers. In other structural characters the genus resembles *Urocichla*.

The sexes differ considerably in colour, and the young are without the markings of the adult. Both species are resident on the Himalayas and the hill-ranges of Burma.

### *Key to the Species.*

| | |
|---|---|
| *a.* Wing about 2·3; the greater coverts, secondaries, and tertiaries not tipped with fulvous | *P. squamata*, p. 342. |
| *b.* Wing about 2; the greater coverts, secondaries, and tertiaries tipped with fulvous | *P. pusilla*, p. 343. |

### 356. **Pnoepyga squamata.** *The Scaly-breasted Wren.*

Microura squamata, *Gould, Icon. Av.* pl. v (1837).
Tesia albiventer, *Hodgs. J. A. S. B.* vi, p. 102 (1837).
Tesia rufiventer, *Hodgs. J. A. S. B.* vi, p. 102 (1837).
Pnoepyga unicolor, *Hodgs. P. Z. S.* 1845, p. 25.
Pnoepyga squamata (*Gould*), *Blyth, Cat.* p. 179; *Horsf. & M. Cat.* i, p. 180; *Jerd. B. I.* i, p. 488; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 32; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 101; *Blanf. J. A. S. B.* xli, pt. ii, pp. 55, 160; *Hume & Dav. S. F.* vi, p. 234; *Hume, Cat.* no. 329.
Pnoepyga albiventris (*Hodgs.*), *Sharpe, Cat. B. M.* vi, p. 302; *Oates, B. B.* i, p. 152; *id. in Hume's N. & E.* 2nd ed. i, p. 223.

*The Scaly-breasted Hill-Wren*, Jerd.; *Marchok-bong*, Lepch.

*Coloration. Male.* Forehead and the sides of the head and neck rich brown with bright fulvous shaft-streaks; the whole upper plumage and the lesser wing-coverts also rich brown with a fulvous drop on each feather, the drops becoming bars on the rump and upper tail-coverts; each feather also narrowly edged with black; wings, median and greater coverts brown, the outer webs broadly edged with chestnut-brown; chin and throat white margined with brown; breast and the middle of the abdomen white, each feather with a large black centre and a narrow black margin; sides of the abdomen and flanks fulvous, marked in a similar manner to the breast.

*Female.* Similar to the male, but the whole of the lower plumage bright fulvous, every part except the chin and throat being marked with black as in the male.

The young have the whole upper plumage and the wings rich rufous-brown and the lower parts dusky brown; no spots whatever. In this state they are the *P. concolor* of Hodgs. MS.

Legs fleshy brown; bill dusky brown above, fleshy at the base beneath; iris brown (*Jerdon*).

Length about 4; tail ·6; wing 2·3; tarsus 1; bill from gape ·65.

*Distribution.* The Himalayas from the Sutlej valley to Sikhim, where this Wren occurs at considerable elevations. It has also been found in the Khási hills and near Bhámo. The birds procured by Wardlaw Ramsay in Karennee, and identified by Lord Walden with the present species, are, I find on examination of the skins, *P. pusilla*, the next species.

*Habits, &c.* Constructs a small nest of moss in May on the trunk of a tree not far from the ground, or other similar locality. The eggs, three in number, are pure white and measure about ·75 by ·55.

### 357. **Pnoepyga pusilla.** *The Brown Wren.*

Pnoepyga pusilla, *Hodgs. P. Z. S.* 1845, p. 25; *Blyth, Cat.* p. 179; *Horsf. & M. Cat.* i, p. 180; *Jerd. B. I.* i, p. 489; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 23; *Hume & Dav. S. F.* vi, p. 234; *Hume, Cat.* no. 330; *Sharpe, Cat. B. M.* vi, p. 304; *Oates, B. B.* i, p. 153.

Pnoepyga squamata, *apud Wald. in Blyth's Birds Burm.* p. 99.

*The Brown Hill-Wren*, Jerd.

*Coloration.* Resembles *P. albiventris*, sex for sex. Differs in being smaller and in having the upper plumage less marked with fulvous spots, these spots being fewer and less distinct. On the other hand the median and greater coverts and all the secondaries and tertiaries are distinctly tipped with fulvous, which is not the case in *P. albiventris.*

The young are also quite similar to the young of *P. albiventris*, and cannot be distinguished from them till some of the spots on the wings appear.

Bill black, lower mandible paler; gape whitish; legs and feet pale brown; claws paler; iris deep brown (*Hume & Davison*).

Length about 3·5; tail ·5; wing 2; tarsus ·8; bill from gape ·6.

*Distribution.* Sikhim; probably Nepal; Assam; Khási hills; Karennee; Muleyit mountain in Tenasserim. Outside our limits this species has been found at Perak.

# Family REGULIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles smooth; hinder aspect of tarsus bilaminated; wing with ten primaries; tongue non-tubular; nostrils clear of the line of the forehead, the space between the nostril and the edge of the mandible less than the space between the nostril and the culmen; plumage of the nestling resembling that of the adult female, but paler; rectrices twelve; each nostril covered by a single stiff feather; sexes slightly different; a single moult.

The only genus of this family contains the Goldcrests, of which four species are known. These birds possess a character which suffices to separate them from all the other Passeres, viz. a stiff, small, and perfect feather over each nostril. This character is sufficiently important, in my opinion, to render it desirable to elevate the Goldcrests to the rank of a family.

The single moult and the simple plumage of the nestling ally the *Regulidæ* to the *Crateropodidæ*; and the former appear to be very closely connected with the last few genera of the *Timeliinæ*, such as *Proparus* and *Lioparus*, the hairs over the nostrils in these being replaced by a feather in *Regulus*, to serve some purpose in its economy which has not yet been discovered.

One species of *Regulus* is a well-known British bird, and the same form is found in India.

In the *Regulidæ* the bill is slender, entire, and about one third the length of the head; the rictal bristles are long, and the head is subcrested, with a bright patch of feathers on the crown and some coronal streaks; the wing is short and curved, the first primary small and the second about equal to the eighth; the tail is composed of twelve feathers (not of ten, as erroneously stated by Jerdon) and slightly forked; the tarsus and the hind claw are strong, but the foot is feeble.

## Genus **REGULUS**, Cuvier, 1800.

Characters the same as those of the Family.

### 358. **Regulus cristatus.** *The Goldcrest.*

Motacilla regulus, *Linn. Syst. Nat.* i, p. 338 (1766).
Regulus cristatus, *Koch, System d. baier. Zool.* p. 199 (1816); *Blyth, Cat.* p. 186; *Hume, Cat.* no. 580; *Biddulph, Ibis,* 1881, p. 67;

1882, p. 279; *Scully, Ibis,* 1881, p. 450; *Gadow, Cat. B. M.* viii, p. 80; *Oates in Hume's N. & E.* 2nd ed. i, p. 223.

Regulus himalayensis, *Blyth, Jerd. B. I.* ii, p. 206 (1863); *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 47; *Hume, N. & E.* p. 373; *Brooks, S. F.* iii, p. 246.

*The Himalayan Fire-crest,* Jerd.

*Coloration. Male.* The lores and a space round the eye dull white; forehead and a broad supercilium, ear-coverts, and the sides of the head and neck ashy; sides of the crown broadly black streaked with yellow, the two bands enclosing a flame-red patch on the crown; hind neck and upper back ashy; upper plumage dull green, yellowish on the rump; tail brown edged with green; wings brown, all the feathers edged with green, the median and greater coverts tipped with pale yellow, the later primaries and the secondaries yellow at base, then black, the latter colour forming a conspicuous patch; later secondaries and tertiaries tipped with whitish; lower plumage pale buff to yellowish brown.

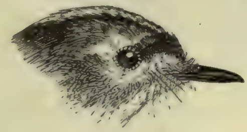

Fig. 109.—Head of *R. cristatus.*

*Female.* Resembles the male, but has the patch on the crown sulphur-yellow.

The young have neither coronal patch nor streaks; otherwise they resemble the adult, the full plumage of which they assume apparently in the first autumn.

Bill black; iris deep brown; legs and claws dark brownish green; feet much paler (*Hume*).

Length about 4; tail 1·5; wing 2·2; tarsus ·65; bill from gape ·5.

The Goldcrest of the Himalayas differs in no respect, so far as I can see, from the Goldcrest of Europe.

*Distribution.* Kashmir and the Himalayas to Sikhim. In summer this species is found as high as 11,000 feet, but there is no record of the lowest level to which it descends either in summer or winter. Scully asserts that the Goldcrest is a summer visitor to Gilgit. It is probable, therefore, that it winters in the lower valleys.

The Goldcrest inhabits Europe and a considerable portion of Asia.

*Habits, &c.* The nest of the Goldcrest appears to have been found only once in the Himalayas. It was discovered at Rogi in the Sutlej valley on the 8th June, and was placed at the end of a deodar branch, eight feet from the ground. It contained seven young birds. The nest was a deep pouch, made of lichens and suspended from several twigs. The eggs of this bird are pinkish white speckled with red, and measure about ·56 by ·42.

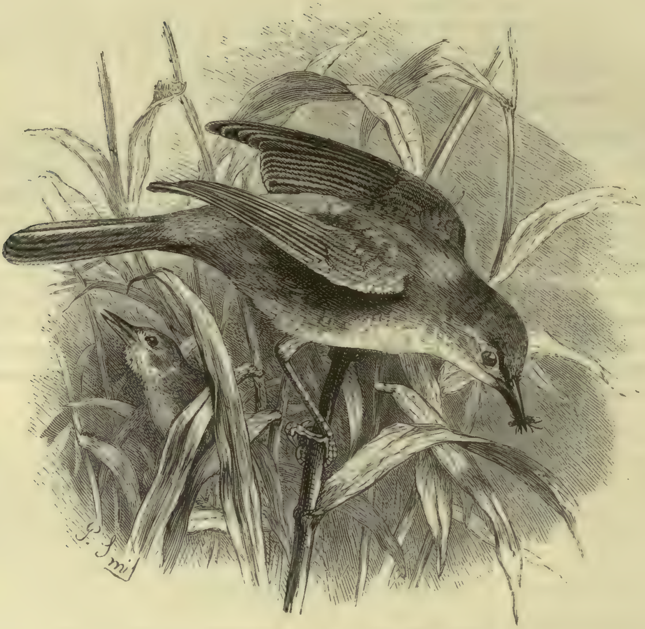

Fig. 110.—*Acrocephalus stentoreus.*

## Family SYLVIIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles smooth or the upper one with a single simple notch; hinder aspect of tarsus smooth, composed of two entire longitudinal laminæ; wing with ten primaries; tongue non-tubular; nostrils always clear of the line of the forehead, the space between the nostril and the edge of the mandible less than the space between the nostril and the culmen; plumage of the nestling like that of the adult female, but brighter; rectrices ten or twelve; sexes generally alike; a partial or complete spring moult in addition to the complete autumn moult.

The *Sylviidæ*, or Warblers, comprise a large number of birds of small size and, with few exceptions, of plain plumage.

Many of them have a complete spring moult, which not only causes a change in the colour of the plumage, but also a change in the shape and length of the tail. In some the spring moult is confined to portions of the body, and in others again merely to some of the quills of the wings and tail.

In the *Sylviidæ* the sexes are alike, except in a few genera, in which they differ slightly. The young birds are remarkable for being more highly coloured than the adults, but they have the same pattern of colour. It is doubtful if the young birds moult in the first autumn; but if they do so, the moult has apparently no effect on the colour of the plumage. In those birds which have a complete moult in the spring, the adult plumage is assumed at that season; but in those the spring moult of which is partial or imperfect, the young do not assume the adult colours till the second autumn.

The majority of the Warblers are migratory, and the migrations of some are far and wide. Others are quite sedentary and incapable of any lengthened flight.

The *Sylviidæ* of India comprise 110 species referable to 32 genera. I have arranged these in two series, the first of which includes all the Warblers with twelve tail-feathers, and the second those with ten.

### *Key to the Genera.*

*a*. Tail of twelve feathers.
  $a'$. Feathers of the forehead short, rounded, their shafts not elongate; no hairs or bristles on the margin of the forehead except the ordinary rictal ones near the gape.
    $a''$. Rictal bristles arranged in a horizontal row.
      $a'''$. The feathers of the head and neck soft, not spinous.
        $a^4$. First primary much less than a third of the length of the second.
          $a^5$. Wing longer than tail by nearly the length of the tarsus . . . . . . . . AËDON, p. 350.
          $b^5$. Wing and tail about equal in length.
            $a^6$. Rictal bristles very small; tail much graduated, the outer feathers less than three quarters the length of tail. . . . . . . . . . . . . LOCUSTELLA, p. 351.
            $b^6$. Rictal bristles strong and well-developed; tail less graduated, the outer feathers more than three quarters the length of tail. . . . . . . . . . . . . . . . . . . . . . . . ACROCEPHALUS, [p. 355.
        $b^4$. The first primary longer than a third of the second, most frequently equal to or exceeding the half.
          $c^5$. Rictal bristles extremely short. . . . TRIBURA, p. 361.
          $d^5$. Rictal bristles well-developed.
            $c^6$. Bill as long as, or longer than, the head . . . . . . . . . . . . . . . . . . ORTHOTOMUS, p. 366.

$d^6$. Bill decidedly shorter than the head.

$a^7$. First primary shorter than half the second.

$a^8$. Wing pointed, the secondaries falling short of tip of wing by more than the length of hind toe …… LUSCINIOLA, p. 369.

$b^8$. Wing rounded, the secondaries falling short of tip of wing by a distance not greater than hind toe …. CISTICOLA, p. 370.

$b^7$. First primary longer than half the second.

$c^8$. Third primary falling short of tip of wing by a considerable distance.

$a^9$. Two rictal bristles on each side of the head .. FRANKLINIA, p. 375.

$b^9$. More than two rictal bristles on each side of the head.

$a^{10}$. Tail much more than once and a half the length of the wing .. LATICILLA, p. 379.

$b^{10}$. Tail less than once and a half the length of the wing ………. GRAMINICOLA, p. 381.

$d^8$. Third primary reaching to tip of wing.

$c^9$. Tail very much longer than wing………… MEGALURUS, p. 382.

$d^9$. Tail equal to wing …. SCHŒNICOLA, p. 384.

$b'''$. The feathers of the head and neck spinous ……………………… ACANTHOPTILA, [p. 385.

$b''$. Rictal bristles arranged vertically …… CHÆTORNIS, p. 387.

$b'$. Feathers of the forehead disintegrated, the shafts lengthened; some supplementary bristles, frequently long and numerous, in front of the rictal bristles.

$c''$. Tail greatly graduated and rounded …. ARUNDINAX, p. 389.

$d''$. Tail nearly even or sometimes slightly forked.

$c'''$. Supplementary bristles in front of the rictal bristles very short; no frontal hairs over nostrils.

$c^4$. Bill from gape to tip longer than the middle toe with claw ………… HYPOLAIS, p. 390.

$d^4$. Bill from gape to tip shorter than middle toe with claw ………… SYLVIA, p. 394.

$d'''$. Supplementary bristles very strong and numerous; no frontal hairs over the nostrils; bill short and stout……. HERBIVOCULA, p. 399.

$e'''$. Supplementary bristles not strong but fairly numerous; no frontal hairs over nostrils; bill weak and slender …… PHYLLOSCOPUS, [p. 400.

- $f'''$. Supplementary bristles very strong and numerous, extending up to the culmen, and lying over the nostrils as far as the middle of the bill; bill large and wide at base .................. Acanthopneuste, p. 411.
- $g'''$. Supplementary bristles very strong and numerous, extending up to the culmen, and lying over the nostrils nearly as far as tip of bill ................ Cryptolopha, p. 421.

*b*. Tail of ten feathers.

- $c'$. Tail not subject to variation in length according to season; obsoletely or not at all cross-rayed; less graduated, the tips of the outer tail-feathers reaching beyond the middle of the tail by more than the length of the hind toe.
  - $e''$. Wing and tail of about the same length.
    - $h'''$. Nostrils overhung by long hairs.
      - $e^4$. Tail very slightly rounded, the outer feathers falling short of tip of tail by less than the length of the hind toe.
        - $e^5$. Rictal bristles of great length, nearly as long as culmen; wing rather longer than tail.
          - $e^6$. Bill short and pointed ........ Abrornis, p. 428.
          - $f^6$. Bill long and very blunt ...... Tickellia, p. 431.
        - $f^5$. Rictal bristles moderate, about half length of culmen; wing rather shorter than tail ........ Scotocerca, p. 432.
      - $f^4$. Tail considerably rounded, the outer feathers falling short of tip of tail by more than length of hind toe .. Neornis, p. 433.
    - $i'''$. Nostrils not overhung by hairs.
      - $g^4$. Supplementary bristles in front of rictal bristles; feathers of forehead with lengthened shafts .......... Horornis, p. 434.
      - $h^4$. No supplementary bristles in front of rictal bristles; feathers of forehead short, smooth, with shafts not produced.
        - $g^5$. Bill as long as head, broad, blunt, and narrowing gradually ...... Phyllergates, p. 439.
        - $h^5$. Bill only half the length of the head, slender, sharp, and narrowing rapidly.
          - $g^6$. Outer tail-feathers falling short of tip of tail by length of tarsus .................... Horeites, p. 440.
          - $h^6$. Outer tail-feathers falling short of tip of tail by length of hind toe only.................... Cettia, p. 441.
  - $f'$. Tail about half length of wing.......... Urosphena, p. 442.
- $d'$. Tail subject to variation in length according to season; distinctly cross-rayed; greatly graduated, the outer feathers in most cases

falling short of middle of tail and never exceeding it by more than length of hind toe.

| | |
|---|---|
| *g''*. Tail about twice length of wing …… | Suya, p. 443. |
| *h''*. Tail about once and a half length of wing or less …………………… | Prinia, p. 447 |

## Genus **AËDON**, Boie, 1826.

The genus *Aëdon* is represented in India by one species, which is a somewhat rare winter visitor and confined at that season to the dry parts of the north-west. It is more richly coloured than most of the Warblers, the chestnut and white on the tail rendering it conspicuous. It is a bird of restricted migration. The bill is about half the length of the head, slender and similar in shape to that of *Locustella* (fig. 113). The forehead is clothed with short thick-set feathers and there are no supplementary bristles; this character, and the longer wing and foot, separate the species from *Sylvia*, in which Seebohm places it. The tail is very ample and much rounded.

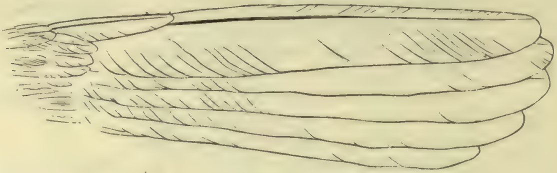

Fig. 111.—Wing of *A. familiaris.*

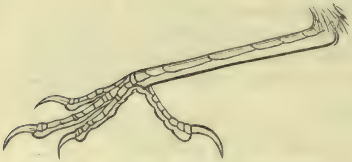

Fig. 112.—Foot of *A. familiaris.*

The Grey-backed Warbler frequents gardens, fields, and low jungle and feeds a good deal on the ground, as might be expected in a bird with so comparatively long a tarsus. This Warbler and its European ally, *A. galactodes*, were at one time considered to be aquatic in their habits, and in this respect to resemble the Grasshopper- and Reed-Warblers, but they are now known to be rather addicted to dry localities. They construct a cup-shaped nest in bushes and low trees and lay four or five eggs, grey marked with brown. The Indian species is not likely to be found breeding in any part of the Empire.

### 359. **Aëdon familiaris.** *The Grey-backed Warbler.*

Sylvia familiaris, *Ménétr. Cat. Rais. Cauc.* p. 32 (1832); *Seebohm, Cat. B. M.* v, p. 36.

Aëdon familiaris (*Ménétr.*), *Butler & Hume, S. F.* iii, p. 476; *Blanf. S. F.* v, p. 246; *Butler, S. F.* vii, p. 183; *Hume, Cat.* no. 492 ter; *Barnes, Birds Bom.* p. 205.

*Coloration.* Upper plumage fulvous-brown, the sides of the crown more or less dusky; lower rump and upper tail-coverts chestnut-brown; middle pair of tail-feathers various—sometimes chestnut with the basal half of the inner web and the tip of the outer brown, sometimes chestnut on the basal third of both webs and brown on the remainder, in other cases the chestnut and brown vary in extent; the next two pairs chestnut, with a large subterminal black patch; the remainder the same but with broad white tips in addition; wings brown, edged with pale sandy brown; lores and a patch behind the eye blackish; a distinct buffish-white supercilium from the nostril to the nape; a similar band under the eye followed below by a dusky streak; the whole lower plumage very pale vinaceous.

Legs and feet dusky fleshy; bill horny above, pale below; iris dark brown (*Hume*).

Length about 7; tail 2·7; wing 3·4; tarsus 1; bill from gape ·85.

*Distribution.* A winter visitor to the dry parts of the north-west of India, where this species has been procured at Karáchi and Kotri in August, at Jodhpore in September, and at Deesa in August, September, and October. It will probably be found in the Punjab. It passes the summer in Persia, Afghanistan, and Turkestan, and probably many of the birds do not migrate at all from these countries. It extends into Europe.

## Genus **LOCUSTELLA**, Kaup, 1829.

The genus *Locustella* is represented in India by three species of somewhat similar appearance and size and of plain colours. They are found in reed-beds, swamps, and wet cover of all sorts, and they occur in India only in the winter. Their summer-quarters appear to be the northern parts of Asia; but, judging from a specimen of *L. straminea* being killed in Native Sikhim in June, it is probable that the breeding-quarters of this species may lie in or near that country.

The Grasshopper-Warblers, as they are called from their peculiar note, are very shy and seldom expose themselves to view. They are consequently little known and seldom obtained. In Burma, however, after shooting one or two specimens I found it quite possible to obtain a large number by walking through inundated rice-fields, and I found them to be common to an extraordinary degree.

The summer and winter plumages of the adults do not differ in any important particular, but the young are very yellow and generally more streaked than the adults. The sexes are alike.

The birds of this genus have a slender bill, about half as long as the head; the rictal bristles are very weak and hardly noticeable, and the forehead is very smooth and free from all hairs; the plumage is soft; the first primary is exceedingly small and the second reaches nearly to the tip of the wing; the tail is very much rounded and the feathers have a tendency to be pointed; the under tail-coverts are very long.

### *Key to the Species.*

*a.* Tail-feathers broadly tipped with white ...... *L. certhiola,* p. 352.
*b.* Tail-feathers without broad white tips.
  *a'.* Lower plumage streaked ................. *L. lanceolata,* p. 353.
  *b'.* Lower plumage not streaked ............ *L. straminea,* p. 354.

### 360. **Locustella certhiola.** *Pallas's Grasshopper-Warbler.*

Motacilla certhiola, *Pal. Zoogr. Rosso-Asiat.* i, p. 509 (1811).
Locustella rubescens, *Blyth, J. A. S. B.* xiv, p. 582 (1845); *id. Cat.* p. 182; *Jerd. B. I.* ii, p. 160.
Locustella temporalis, *Jerd. B. I.* ii, p. 160 (1863).
Locustella certhiola (*Pall.*), *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 270; *Hume, Cat.* no. 521; *Legge, Birds Ceyl.* p. 548; *Seebohm, Cat. B. M.* v, p. 114; *Oates, S. F.* x, p. 216; *id. B. B.* i, p. 102.
*The Ruddy Reed-Warbler,* Jerd.

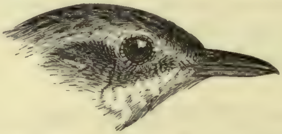

Fig. 113.—Head of *L. certhiola.*

*Coloration.* Head blackish brown, each feather narrowly edged with pale reddish brown; a collar behind the nape reddish brown without marks; this unspotted collar indicates very old birds; back, scapulars, and wing-coverts dark blackish brown, rather broadly edged with reddish brown; rump reddish brown, without marks; upper tail-coverts reddish brown, each feather with a large central drop of black; the outer tail-feathers nearly all black, the rufous margins being small; towards the middle of the tail each pair of rectrices becomes progressively less black and more margined with rufous, and the middle pair are rufous with a broad serrated black shaft-line; all the rectrices tipped with white; eye-streak yellowish white; ear-coverts hair-brown, and a patch below the ear-coverts yellowish buff; chin, throat, and middle of abdomen whitish; remainder of the underparts delicate buff, becoming darker on the flanks and under tail-coverts; wings brown, the tertiaries edged with whitish, and the other quills with pale rufous-brown.

As a rule, the underparts are quite unmarked; but in many birds in adult plumage there are a few tiny marks on the feathers of the sides of the breast.

Iris sepia-brown; legs white; bill dark brown; mandible ochraceous (*Everett*).

The young bird up to October has the whole upper plumage, including the coverts and tertiaries, blackish brown; the feathers of the head narrowly, and all the others broadly, margined with reddish brown; rectrices chiefly blackish brown, irregularly margined with rufous-brown, and very broadly terminated with whitish; the lower plumage buff, pale on the throat and upper breast, dark on the lower breast, and increasing in depth of colour down to the tail-coverts; the throat and breast closely spotted with triangular blackish-brown marks; stripe over the eye and a streak from the bill under the cheeks and ear-coverts yellowish buff; ear-coverts hair-brown; under wing-coverts whitish; primaries and secondaries dark brown, narrowly edged with reddish brown.

Birds with the bright yellowish-buff lower plumage are not spotted, and this is probably the stage into which the nestling moults in October or November. In this stage the upper plumage is much brighter, the black centres to the feathers being smaller and the margins larger; the rump is almost unstreaked. The black on the rectrices is less in extent, and the white tips reduced to the same size as in the adult; the eye-streak, the chin, throat, and the whole lower plumage are lively yellowish-buff, becoming deeper and passing into warm ochraceous on the flanks and under tail-coverts. There are no spots, but a few of the feathers on the sides of the neck are obsoletely tipped darker, but so slightly as not to be noticeable without close inspection.

From this stage the bird in spring moults into the full plumage. The summer plumage does not apparently differ from that of winter except in being rather paler below.

Length 5·5; tail 2·2; wing 2·3; tarsus ·85; bill from gape ·7; the second primary is generally equal to the fourth, but sometimes slightly longer or shorter.

*Distribution.* A winter visitor to Burma and portions of India. This species does not appear to be rare in some parts of Bengal. It has been procured at Cherra Poonjee, in the Andamans, and in Ceylon. I observed it to be very common in Southern Pegu in the rice-fields near the Pegu Canal from October to December. There is no portion of India and Burma, suited to its habits, where this bird may not probably be found if looked for. In winter it occurs in China and the Malay Archipelago, and it passes the summer in Northern Asia.

### 361. **Locustella lanceolata.** *The Streaked Grasshopper-Warbler.*

Sylvia lanceolata, *Temm. Man. d'Orn.* ed. 2, iv, p. 614 (1840).
Locustella subsignata, *Hume, S. F.* i, p. 409 (1873), ii, p. 496.
Locustella lanceolata (*Temm.*), *Wald. Ibis,* 1874, p. 139; *id. in Blyth,*

*Birds Burm.* p. 121; *Hume, S. F.* iv, p. 290; *Hume & Dav. S. F.* vi, p. 339; *Hume, Cat.* no. 520 bis; *Seebohm, Cat. B. M.* v, p. 118; *Oates, S. F.* x, p. 215; *id. B. B.* i, p. 104.
Lusciniopsis hendersonii, *Cass. in Proc. Phil. Ac. Sc.* 1858, p. 194.

*Coloration.* Whole upper plumage russet-brown, each feather with a distinct dark brown median streak; wings brown, the primaries and secondaries edged with russet-brown on the outer webs, the tertiaries edged with the same on both webs; tail brown, obsoletely edged paler, and the shafts viewed from below white; ear-coverts hair-brown; sides of the head streaked with russet- and dark brown; chin, upper throat, and middle of the abdomen spotless pale ochraceous white; the remainder of the lower plumage darker ochraceous, streaked with blackish brown; under tail-coverts sometimes streakless, more frequently largely streaked with blackish brown; under wing-coverts and axillaries pale vinaceous.

The streaks on the lower surface become reduced in aged birds. The bird least marked in my series has a few streaks only on the middle of the breast and on the flanks, with one or two faint marks on the under tail-coverts. In this state it is very like the Indian *L. straminea.* The majority of the birds are densely streaked from the chin to the tail-coverts, except on the abdomen, and all these are characterized by a richer tone of colouring beneath.

The tail-coverts vary in the most extraordinary manner. In many of the birds they are entirely unmarked; in others densely streaked, and this apparently quite independently of the amount of streaking on the other parts of the lower plumage.

Legs fleshy white; claws pale horn-colour; upper mandible dark brown, lower one yellow at base, brown at tip; iris brown.

Length rather more than 5; tail 1·8; wing 2·1; tarsus ·75; bill from gape ·6; the second primary is generally intermediate in length between the third and fourth, or equal to the fourth.

*Distribution.* A winter visitor to Burma and the eastern portions of India. The most westerly locality from which I have seen a specimen is Etáwah. This species probably extends throughout Bengal; I found it very abundant in Southern Pegu in rice-fields and grass along the canal, from October to February, and Davison procured it at various places in Tenasserim down to the extreme south of that division. It is also known to occur in the Andaman Islands. It summers in Central and Northern Asia and in North-eastern Europe.

### 362. **Locustella straminea.** *The Turkestan Grasshopper-Warbler.*

Acridiornis straminea, *Severtz. Turkest. Jevotn.* p. 66 (1873) (descr. nulla).
Locustella certhiola (*Pall.*), *Jerd. B. I.* ii, p. 159.
Locustella hendersoni (*Cass.*), *Butler, S. F.* iii, p. 479; *Cripps, S. F.*

vii, p. 284; *Hume, Cat.* no. 520; *Butler, S. F.* ix, p. 406; *Reid, S. F.* x, p. 44; *Barnes, Birds Bom.* p. 213.

Locustella straminea (*Severtz.*), *Seebohm, Cat. B. M.* v, p. 117.

*The Lesser Reed-Warbler*, Jerd.

*Coloration.* The whole upper plumage olive-brown, each feather with a central dark brown or black spot; wings brown, edged with olive-brown; tail brown, faintly edged with olive-brown and tipped paler, obsoletely cross-rayed; lores and an indistinct supercilium buffy white; ear-coverts brownish; chin, throat, and middle of abdomen whitish; remainder of lower plumage ochraceous; under tail-coverts streaked with brown.

Upper mandible dark brown; lower mandible, legs, and feet fleshy; iris light brown (*Bingham*).

Length about 5·5; tail 2; wing 2·3; tarsus ·7; bill from gape ·6; the second primary is shorter than the sixth, but longer than the fourth.

*Distribution.* A winter visitor to the plains of India. I have examined specimens from Delhi, Etáwah, Cawnpore, Native Sikhim, the Bhutan Doars, Asansol, Deesa, Belgaum, and Coimbatore. All these were killed from April to September, except the specimen from Native Sikhim, which was procured in June. It is, therefore, probable that *L. straminea* may pass the summer and breed there. Cripps records this species from Furreedpore, but I have not had an opportunity of examining the specimen referred to by him.

The summer-quarters of this bird are not known with any certainty.

## Genus **ACROCEPHALUS**, Naum., 1811.

The genus *Acrocephalus* contains five Indian species which are common in winter. Three of them appear to remain in suitable localities and in limited numbers throughout the summer and to breed in India. The majority of these birds, however, leave in spring and doubtless go to Central and Northern Asia.

The Reed-Warblers are birds of plain plumage closely allied to each other, and not easy to be identified except by comparison of size or by the structure of the wing. They haunt reed-beds, canals, ditches, and almost any locality which is fairly well watered. They are great skulkers and are seldom seen, but the harsh note that they all have generally betrays their presence. In the breeding-season they all have a pleasing song.

The winter and summer plumages do not vary greatly, the chief difference being an intensity of rufous or fulvous in the winter after the autumn moult. These birds appear to undergo a complete moult in the spring. The sexes are alike.

In the birds of this genus the bill is of considerable length, being nearly as long as the head; there are three large rictal bristles on each side of the head, and the forehead is smooth. The first primary is very minute, and the second reaches nearly to the tip of the wing. The tail is fairly long and greatly rounded, and the feathers are rather narrow and pointed *.

### *Key to the Species.*

*a*. Of large size; wing about 3.
  *a'*. Second primary shorter than the fifth. *A. stentoreus*, p. 356.
  *b'*. Second primary equal to, or longer than the fourth ................ *A. orientalis*, p. 357.
*b*. Of small size; wing under 2·5.
  *c'*. With a distinct black stripe over the yellow supercilium .............. *A. bistrigiceps*, p. 358.
  *d'*. With no black stripe over the supercilium.
    *a''*. Bill from gape to tip measuring under ·7.
      *a'''*. Second primary between the sixth and seventh in length; upper plumage olivaceous .... *A. dumetorum*, p. 359.
      *b'''*. Second primary between the seventh and eighth or equal to eighth; upper plumage rufous. *A. agricola*, p. 359.
    *b''*. Bill from gape to tip fully ·8 .... *A. macrorhynchus*, p. 360.

### 363. **Acrocephalus stentoreus.** *The Indian Great Reed-Warbler.*

Curruca stentorea, *Hemp. & Ehr. Symb. Phys., Aves*, fol. *bb* (1833).
Agrobates brunnescens, *Jerd. Madr. Journ.* x, p. 269 (1839).
Acrocephalus brunnescens (*Jerd.*), *Blyth, Cat.* p. 181; *Horsf. & M. Cat.* i, p. 331; *Jerd. B. I.* ii, p. 154; *Blanford, J. A. S. B.* xxxviii, pt. ii, p. 180; *Hume, J. A. S. B.* xxxix, pt. ii, p. 119; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 270; *Brooks, J. A. S. B.* xli, pt. ii, p. 77; *Hume & Hend. Lah. to Yark.* p. 214, pl. xvi; *Legge, S. F.* i, p. 488; *Blanford, Ibis*, 1874, p. 79; *Butler, S. F.* iii, p. 478.
Calamodyta stentorea (*H. & E.*), *Hume, N. & E.* p. 326.
Calamodyta meridionalis, *Legge, S. F.* iii, p. 369 (1875).
Acrocephalus stentoreus (*H. & E.*), *Brooks, J. A. S. B.* xliii, pt. ii, p. 245; *Hume, Cat.* no. 515; *Legge, Birds Ceyl.* p. 541; *Seebohm, Cat. B. M.* v, p. 98; *Doig, S. F.* ix, p. 279; *Oates, B. B.* i, p. 94; *Davidson, S. F.* x, p. 307; *Barnes, Birds Bom.* p. 210; *Oates in Hume's N. & E.* 2nd ed. i, p. 224.

*The Large Reed-Warbler*, Jerd.; *Bora-jitti*, Tel.

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* The following species of Reed-Warblers are likely to occur within our limits, but are not yet known to do so:—

Acrocephalus arundinaceus (*Linn.*), which occurs in Afghanistan and Yarkand.

A. schœnobænus (*Linn.*), which occurs as far east as Fao in the Persian gulf.

A. streperus (*Vieill.*), which has occurred at Bampur, in Persian Afghanistan.

A. palustris (*Bechst.*), which has occurred at Fao and in Persia.

*Coloration.* Upper plumage olive-brown tinged with fulvous, especially on the rump and upper tail-coverts; wings and tail brown, edged on the outer webs with fulvous-brown; lores darker; a pale indistinct supercilium buffish white; ear-coverts and sides of the neck like the back; chin and throat nearly white; remainder of lower plumage fulvous, paling on the abdomen. The throat and breast in some specimens are streaked with brown.

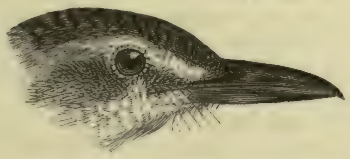

Fig. 114.—Head of *A. stentoreus.*

Iris yellowish brown; eyelids plumbeous; mouth orange-yellow; upper mandible dark brown, edges and the whole lower mandible dusky flesh-colour; legs plumbeous.

Length 7·7; tail 3; wing 3·2; tarsus 1·15; bill from gape 1; the second primary equals the fifth, or is sometimes shorter, and falls short of the tip of the wing by ·15.

*Distribution.* Throughout the plains of India in suitable localities in winter, from the base of the Himalayas to Ceylon, and from Sind to Assam, and southwards from Assam to Southern Pegu.

Many birds remain in the plains during the summer, and their nests have been found in the Eastern Nára, Sind, and in Ceylon. Others, probably the majority, repair for the summer to Kashmir and the Himalayas in general, and some to Central Asia. This bird and *A. orientalis* remain in Burma till the middle of May, and it is probable that both species may breed there or not far off.

*Habits, &c.* Constructs a nest of coarse grass attached to reeds in or near water. The nest is cup-shaped, deep, and rather massive. The breeding-season appears to be from June to August. The eggs, generally four in number, are pale green or stone-colour, marked with various colours from black to reddish. They measure about ·89 by ·61.

### 364. **Acrocephalus orientalis.** *The Eastern Great Reed-Warbler.*

Salicaria turdina orientalis, *Temm. & Schleg. Faun. Jap., Aves*, p. 50, pl. xx B (1850).

Acrocephalus orientalis (*Temm. & Schleg.*), *Oates, S. F.* iii, p. 337; *Hume & Dav. S. F.* vi, p. 338; *Hume, Cat.* no. 515 bis; *Seebohm, Cat. B. M.* v, p. 97; *Oates, S. F.* x, p. 213; *id. B. B.* i, p. 93.

*Coloration.* Precisely similar to that of *A. stentoreus*, except that the throat and breast are generally much streaked with brown, and I have hardly ever seen a specimen in which this streaking was entirely absent. In summer the lower plumage becomes paler.

The dimensions are those of *A. stentoreus.* The bill is said to be smaller and the tail shorter, but I have not found these points of any use in discriminating the two birds. The second primary generally equal to the fourth.

*Distribution.* This Reed-Warbler occurs plentifully throughout Southern Pegu, from the head of the Pegu Canal down to Rangoon, and probably throughout the whole of Tenasserim, for Davison observed it at Tavoy and Malawún. It is found in Burma, so far as my own observations extend, from the commencement of October to the middle of May. It has occurred in the Andamans. In winter it has a wide range, being found in south-eastern Asia nearly as far as Australia. It summers in North China, Japan, and Eastern Siberia.

This and the preceding species, *A. stentoreus*, can only be discriminated with certainty when the wings are fully grown and perfect. The differences may appear very trivial, but they are constant, and are associated with a different geographical distribution. In Pegu the two birds meet; but here *A. stentoreus* is rare, *A. orientalis* extremely common. *A. arundinaceus*, another species, has its own geographical range, being confined almost to Europe and Africa. It differs from the other two in the shape of the wing, the second primary in this bird being as long as the third, or, in other words, reaching to the tip of the wing.

### 365. **Acrocephalus bistrigiceps.** *Schrenck's Reed-Warbler.*

Acrocephalus bistrigiceps, *Swinh. Ibis,* 1860, p. 51; *Hume & Dav. S. F.* vi, p. 338; *Hume, Cat.* no. 517 ter; *Seebohm, Cat. B. M.* v, p. 94; *Oates, S. F.* x, p. 214; *id. B. B.* i, p. 97.

*Coloration.* Upper plumage russet-brown, brighter on the rump and upper tail-coverts; a distinct black streak on each side of the crown of the head; below this a broad pale buff supercilium, running from the base of the bill; lores dark brown; ear-coverts hair-brown; sides of neck like the back; lower plumage pale buff, lighter on the abdomen, and nearly white on the chin and throat; wings and tail brown, edged with russet-brown on the outer webs. The lower plumage is more rufous after the autumn moult.

Iris brown; mouth pale yellow; upper mandible brown, lower flesh-coloured, slightly dusky at the tip; legs plumbeous flesh-colour; soles of feet yellow; claws horn-colour.

Length 5·1; tail 2·1; wing 2·1; tarsus ·8; bill from gape ·7; the second primary is generally intermediate in length between the sixth and seventh, and sometimes equals the seventh; the first primary is large, measuring ·5 inch in length.

*Distribution.* Common in Southern Pegu near Kyeikpadein from November to April in paddy-fields and grass-jungle. This bird has also been found at Tavoy.

The summer-quarters of this bird appear to be Japan and Eastern Siberia.

### 366. **Acrocephalus dumetorum.** *Blyth's Reed-Warbler.*

Acrocephalus dumetorum, *Blyth, J. A. S. B.* xviii, p. 815 (1849); *id. Cat.* p. 326; *Horsf. & M. Cat.* i, p. 332; *Jerd. B. I.* ii, p. 155; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 181; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 270; *Brooks, J. A. S. B.* xli, pt. ii, p. 77; xliii, pt. ii, p. 246; *id. S. F.* iii, p. 241; *Anders. S. F.* iii, p. 351; *Butler, S. F.* iii, p. 479; *Anders. Yunnan Exp., Aves,* p. 622; *Legge, Birds Ceyl.* p. 545; *Hume, Cat.* no. 516; *Seebohm, Cat. B. M.* v, p. 104; *Scully, Ibis,* 1881, p. 448; *Biddulph, Ibis,* 1882, p. 278; *Oates, B. B.* i, p. 96; *Davison, S. F.* x, p. 390; *Barnes, Birds Bom.* p. 210; *Oates in Hume's N. & E.* 2nd ed. i, p. 226.

Calamodyta dumetorum (*Blyth*), *Hume, N. & E.* p. 327.

*The Lesser Reed-Warbler*, Jerd. *Podena,* H.; *Tik-tikki,* Mussulmans; *Tikra,* Beng.; *Kumpa-jitta,* Tel.

*Coloration.* Upper plumage olive-brown, tinged with fulvous, not with russet; wings and tail brown, edged on the outer webs with olive-brown; lores dusky; over the lores an indistinct pale streak reaching to the eye; ear-coverts and sides of neck like the back; lower plumage pale buff, paler on the chin, throat, and abdomen. In summer the buff on the lower parts becomes extremely pale.

Bill dusky, fleshy at base beneath; legs red-brown; irides yellow-brown (*Jerdon*).

Length 5·8; tail 2·3; wing 2·4; tarsus ·9; bill from gape ·7; first primary ·35; the second reaches to about the end of the sixth, or is intermediate in length between the sixth and seventh.

The present species may be distinguished from the last by its much larger bill, differently shaped wing, and by the absence of a rufous tinge on the upper plumage.

*Distribution.* In winter throughout the plains of India from the Himalayas to Ceylon, and from Sind to Assam, and extending to Southern Pegu.

In summer this species is found in Kashmir and along the whole range of the Himalayas to Nepal, in which tract it breeds commonly. Many birds, however, appear to migrate to Northern Asia.

*Habits, &c.* This species is less aquatic than the others in its habits. It breeds in various parts of the Himalayas at all altitudes up to about 7000 feet. The nest is a globular structure of grass and reeds with a lateral entrance, and built low down in a bush on the bank of a stream. The eggs, four in number, are white, speckled with rufous, and measure about ·62 by ·5.

### 367. **Acrocephalus agricola.** *The Paddy-field Reed-Warbler.*

Sylvia (Acrocephalus) agricola, *Jerd. Madr. Journ.* xiii, pt. ii, p. 131 (1844).

Acrocephalus agricolus (*Jerd.*), *Blyth, Cat.* p. 182; *Horsf. & M. Cat.* i, p. 334; *Jerd. B. I.* ii, p. 156; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 270; *Brooks, J. A. S. B.* xli, pt. ii, p. 77; *Oates, S. F.*

iii, p. 339; *Hume & Dav. S. F.* vi, p. 338; *Hume, Cat.* no. 517; *Butler, S. F.* ix, p. 406; *Seebohm, Cat. B. M.* v, p. 105; *Oates, B. B.* i, p. 95; *Davison, S. F.* x, p. 390; *Barnes, Birds Bom.* p. 211; *Hume, S. F.* xi, p. 201; *Oates in Hume's N. & E.* 2nd ed. i, p. 229.

Calamodyta agricola (*Jerd.*), *Hume, N. & E.* p. 328; *id. S. F.* i, p. 190.

*The Paddy-field Warbler*, Jerd.; *Yerra kumpa jitta*, Tel.

*Coloration.* Whole upper plumage russet-brown, brightest on the rump and upper tail-coverts; tail of the same colour, and margined brighter on the outer webs; wings brown, margined with russet on the outer webs; lores dusky; an indistinct supercilium from the bill to above the eye, and not extending much beyond the latter; ear-coverts and sides of neck like the upper plumage; lower plumage pale buff, less bright on the abdomen, and becoming almost white on the chin and throat. This is the plumage after the autumn moult. In summer the buff of the lower parts becomes very pale, and the upper parts are less ruddy, being almost earthy brown.

Iris pale yellow; eyelids plumbeous; upper mandible dark brown, the lower one fleshy yellow; mouth orange-yellow; legs and claws pinkish brown.

Length 5·3; tail 2·4; wing 2·2; tarsus ·9; bill from gape ·7; first primary ·45; the second primary is intermediate between the seventh and eighth, and occasionally equals the eighth.

*Distribution.* In winter the whole of India from the Himalayas south to Coorg and the Wynaad on the west, and to Nellore on the east, and from Sind to Assam; thence down to Southern Pegu and Northern Tenasserim.

In the summer some birds retire to the Himalayas, where they breed from Kashmir to Nepal, but the majority appear to pass on to Central Asia.

*Habits, &c.* Very aquatic. Has been found breeding in Kashmir. A nest found by Brooks on the 13th June was a deep cup of grass carelessly put together and built in a rose-bush. It did not contain eggs, and none have as yet been procured in India.

### 368. **Acrocephalus macrorhynchus.** *The Large-billed Reed-Warbler.*

Phyllopneuste macrorhynchus, *Hume, Ibis*, 1869, p. 357.

Acrocephalus macrorhynchus (*Hume*), *Hume, Ibis*, 1871, p. 31; *id. S. F.* iii, p. 405; *id. Cat.* no. 517 bis; *Seebohm, Cat. B. M.* v, Add. p. 404.

*Coloration.* The upper plumage and visible portions of wings and tail olive-brown; the lower plumage pale ochraceous; the under wing-coverts and axillaries paler.

Length about 5; tail 2·3; wing 2·4; tarsus ·85; bill from gape ·8; the first primary measures ·35; the second is intermediate between the ninth and tenth; the closed tail is graduated to the extent of ·4.

The type specimen, the only one known, I believe, of this species is now in the British Museum. It appears to me to represent an undoubtedly distinct species of *Acrocephalus*, which may be recognized by its abnormally large bill. The bird procured by Scully, and identified by him with the present species (S. F. iv, p. 146), is also in the British Museum, and is without doubt a specimen of *Tribura major*.

*Distribution*. The type was obtained in the Sutlej valley not far from Rámpur.

## Genus **TRIBURA**, Hodgs., 1845.

The genus *Tribura* contains five Indian species, of which four are alpine and one an inhabitant of the plains. The former do not appear to migrate beyond ascending the mountain-slopes in summer and descending them in winter; but the latter is probably a migrant from distant regions, spending the winter in Burma and disappearing from that country in spring.

These Warblers are birds of plain plumage, and the feathers are very soft and silky in texture. Some species are spotted on the breast. The sexes are alike. The spring moult is complete or nearly so, and there is generally a slight difference between the summer and the winter plumages. The young birds are very yellow.

The species of *Tribura* frequent grass and bushes, and are great skulkers, and though fond of moisture they are not particularly aquatic in their habits.

The five Indian species of this genus are not perfectly congeneric, one differing from the other four in its extremely large bill, whilst a second species is distinguished from the other three by the shape of the wing. I keep all five together, however, but subsequent workers will do well to investigate their claims to generic separation.

In *T. major* the bill is as long as the head; in the other species only half the length of the head; in all cases slender and straight. The rictal bristles are extremely minute and invisible without a lens. The forehead is very smooth, and free from all hairs &c. The wing is fairly long, the first primary varying from rather more than a third to half the length of the second, which is long, but falls short of the tip of the wing. The tail is very much rounded, and the feathers are rather pointed. The tarsus is sufficiently long to enable these birds to hop about freely.

### *Key to the Species.*

*a*. First primary much shorter than half the second
  *a'*. Bill at gape ·8 ........................ *T. major*, p. 362.
  *b'*. Bill at gape ·65 ........................ *T. intermedia*, p. 363.

*b*. First primary about half the length of the second.
  *c'*. Sides of the head and neck and the throat ashy, the latter spotted ................ *T. thoracica*, p. 363.
  *d'*. Sides of the head and neck rufous; throat whitish, unspotted.
    *a''*. Breast whitish; lower mandible yellow throughout........................ *T. luteiventris*, p. 364.
    *b''*. Breast grey; lower mandible dusky, almost black at base ................ *T. mandellii*, p. 365.

### 369. **Tribura major.** *The Large-billed Bush-Warbler.*

Dumeticola major, *Brooks, J. A. S. B.* xli, p. 77 (1872); *Stoliczka, S. F.* ii, p. 461; *Hume, S. F.* iii, p. 242; *Biddulph, Ibis*, 1881, p. 65; *Scully, Ibis*, 1881, p. 448.
Acrocephalus macrorhynchus (*Hume*), *apud Scully, S. F.* iv, p. 146.
Schœnicola major (*Brooks*), *Hume, Cat.* no. 519 quat.
Lusciniola major (*Brooks*), *Seebohm, Cat. B. M.* v, p. 124.

*Chighchi*, Turki.

*Coloration.* In summer the whole upper plumage and the sides of the neck are dull olive-brown, rather darker on the crown, and with a fulvous tinge throughout; wing-coverts and tail brown, edged with rufescent olive-brown; tail concolorous with the back; lores whitish; an indistinct cream-coloured supercilium; ear-coverts whitish with brown tips; cheeks and sides of the throat white, elegantly barred with brown; chin white; throat and upper breast white, spotted with brown; middle of abdomen white; remainder of the lower plumage ochraceous, the under tail-coverts broadly margined with dull white; under wing-coverts and axillaries pale buff. The sexes are probably alike.

The nestling is tinged with green throughout, and the throat is barred; the upper breast is spotted with greenish brown.

The winter plumage of the adult is unknown, but does not probably differ from the summer plumage in any appreciable degree.

Iris dark brown; bill black above, pale fleshy beneath; mouth and edges of gape yellow; tarsus pale yellowish-waxy; toes darkish fleshy-brown; claws brown horny (*Scully*). In the breeding-season the whole bill is black.

Length about 6; tail 2·4; wing 2·3; tarsus ·8 to ·9; bill from gape ·8.

*Distribution.* In summer this species is found throughout Kashmir; I have examined specimens collected in Gilgit, at Gulmurg, and at Kargil from June to August; and Scully collected it at Kizil Aghil, near Sanju, on his way to Yarkand in August. At this season *T. major* occurs from 6000 to 10,000 feet of elevation. Its winter-quarters are unknown, but it probably merely descends into the warm valleys at this season.

*Habits, &c.* Brooks remarks that this Warbler in Kashmir frequents exclusively places where the ground-cover is abundant; and Scully states that it occurs in long grass, is apparently very restless, and continually flits in grass from blade to blade.

### 370. **Tribura intermedia.** *The Burmese Bush-Warbler.*

Dumeticola intermedia, *Oates, S. F.* ix, p. 220.
Tribura intermedia (*Oates*), *Brooks, S. F.* xi, p. 445; *Oates, B. B.* i, p. 101.
Tribura taczanowskia (*Swinh.*), *Oates, S. F.* x, p. 218.

*Coloration.* The whole upper plumage russet-brown, the wings plain brown, the outer webs edged with russet-brown; tail russet-brown, the shafts viewed from below being white, and the tips of all the feathers paler; an indistinct narrow supercilium whitish; lores tinged with brown; ear-coverts hair-brown, with the shafts paler; cheeks white, the feathers generally tipped with brown; whole lower plumage white, tinged with buff, especially on the breast, flanks, and under tail-coverts, the feathers of which are broadly tipped with white; axillaries and under wing-coverts pale buffy white.

The young are strongly suffused on the lower plumage and cheeks with deep yellowish buff, and the feathers of the throat are generally tipped with dusky brown.

Upper mandible and tip of the lower dark brown; remainder of bill white; mouth white; legs whity flesh-colour; claws pale horn; iris hazel-brown.

Length 5·5; tail 2·4; wing 2·2; tarsus ·8; bill from gape ·65.

This species resembles *T. luteiventris* more closely than it does any of the others, but it may be separated at once from it by the size of the first primary; the colour of the plumage is also sufficiently distinct.

*T. taczanowskia* is a Chinese species of which only a young specimen is known. The two birds will, I expect, prove to be quite distinct when adults are hereafter compared.

*Distribution.* Known at present only from the immediate vicinity of Kyeikpadein in Pegu, where this species occurs in the cold weather from November to the middle of February. Seebohm possesses a bird from the Bhutan Doars which appears to be referable to this Bush-Warbler.

*Habits, &c.* Frequents paddy-fields, stubble, and grass, and is a great skulker, seldom showing itself. This bird seems to feed on the ground a good deal.

### 371. **Tribura thoracica.** *The Spotted Bush-Warbler.*

Salicaria affinis, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844, descr. nulla); *id. Cat. Mamm. &c. Nepal*, pp. 64, 151 (1846).
Dumeticola thoracica, *Blyth, J. A. S. B.* xiv, p. 584 (1845); *id. Cat.* p. 183.
Horornis flaviventris, *Hodgs. P. Z. S.* 1845, p. 31; *Jerd. B. I.* ii, p. 162; *Brooks, S. F.* x, p. 170.
Dumeticola affinis (*Hodgs.*), *Horsf. & M. Cat.* i, p. 334; *Jerd. B. I.* ii, p. 158; *Godw.-Aust. J. A. S. B.* xli, pt. ii, p. 142; *Brooks, J. A. S. B.* xliii, pt. ii, p. 246; *id. S. F.* iii, p. 286.
Dumeticola brunneipectus, *Blyth, Ibis*, 1867, p. 19; *Blanf. J. A. S. B.* xli, pt. ii, p. 164; *Hume, S. F.* i, p. 494; *id. N. & E.* p. 328; *Brooks, J. A. S. B.* xliii, pt. ii, p. 246; *id. S. F.* viii, p. 475.

Schœnicola affinis (*Hodgs.*), *Hume, Cat.* no. 519; *id. S. F.* xi, p. 205.
Schœnicola brunneipectus (*Blyth*), *Hume, Cat.* no. 519 bis.
Schœnicola flaviventris (*Hodgs.*), *Hume, Cat.* no. 524.
Lusciniola thoracica (*Blyth*), *Seebohm, Cat. B. M.* v, p. 124, pl. vi.
Lusciniola flaviventris (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 131.
Tribura thoracica (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 229.

*The Spotted Reed-Warbler*; *the Yellow-bellied Hill-Warbler*, Jerd.

*Coloration.* In summer the whole upper plumage, wings, and tail are rufescent olive-brown; lores and a rather distinct supercilium ashy white; sides of the head and neck ashy brown; chin and abdomen pure white; throat ashy brown, with numerous black spots; breast ashy; sides of body, vent, and under tail-coverts dull rufous-brown, the last broadly tipped with dull white. The sexes appear to be alike, judging from the specimens I have examined.

In winter a good deal of the ashy brown on the sides of the head and neck and on the throat and breast becomes ochraceous, and the spots on the throat are reduced in size and number.

The young bird has the chin, throat, and abdomen dull yellow with a greenish tinge, and the remainder of the lower plumage is dull ochracous brown; there are a few brown mottlings or irregular bars on the throat, and in this plumage the birds are *Horornis flaviventris*, corresponding exactly with Hodgson's types.

In winter the bill is brown; legs pale fleshy; iris hazel (*Cockburn*); in summer the bill is deep black.

Length about 5; tail 2·5; wing 2·1; tarsus ·75; bill from gape ·6.

*Distribution.* Nepal and Sikhim, extending to the Bhutan Doars and across the valley to Shillong. Godwin-Austen also records this species from the Megna river in Sylhet. In the British Museum there are specimens collected in the N.W. Himalayas by Pinwill, and in Kashmir by Jerdon.

*Habits, &c.* This species appears to be resident wherever it is found, or to migrate very locally. It occurs up to 9000 feet of elevation. Its nest has been found in Nepal and Sikhim, a cup loosely made of dry leaves and grass, and built in a low bush. The eggs, three or four in number, are white with purplish-red spots and specks, and measure ·68 by ·55. The breeding-season appears to be June and July.

### 372. **Tribura luteiventris.** *The Brown Bush-Warbler.*

Tribura luteoventris, *Hodgs. P. Z. S.* 1845, p. 30; *Horsf. & M. Cat.* i, p. 335; *Jerd. B. I.* ii, p. 161; *Hume, N. & E.* p. 329; *Brooks, J. A. S. B.* xliii, pt. ii, p. 246; *id. S. F.* iii, p. 285; *Hume, Cat.* no. 522; *Oates in Hume's N. & E.* 2nd ed. i, p. 231.
Pseudoluscinia luteoventris (*Hodgs.*), *Blyth, Cat.* p. 182.
Horornis erythrogenys, *Hume, Ibis,* 1872, p. 108; *id. S. F.* iii, p. 410.
Tribura erythrogenys (*Hume*), *Hume, Cat.* no. 522 bis.
Lusciniola luteiventris (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 125.

*The Plain-brown Reed-Warbler*, Jerd.

*Coloration.* In summer the whole upper plumage, wings, and tail are rufous-brown; lores and a very short indistinct supercilium greyish white; sides of the head rufous, the ear-coverts with pale shafts; chin, throat, middle of breast and of abdomen dull white; under tail-coverts and sides of the body dull rufous-brown, the former narrowly tipped with dull white.

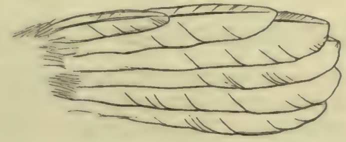

Fig. 115.—Wing of *T. luteiventris*.

In winter the plumage is much the same as in summer, but the sides of the head are brighter rufous (*T. erythrogenys*), and the sides of the neck, breast, body, and the under tail-coverts are a bright ochraceous brown.

The young resemble the adults in winter plumage, but are suffused with yellow beneath, and they are tinged with ochraceous on the sides of the head and neck.

Iris hazel; bill pale brown; legs dark fleshy-brown (*Cockburn*); in summer the upper mandible of the bill is almost black, in winter nearly entirely yellow.

Length about 5·5; tail 2·6; wing 2·1; tarsus ·7; bill from gape ·6.

The type of *T. erythrogenys* and another specimen labelled the same in the Hume Collection are in my opinion nothing else than *T. luteiventris* in fresh spring plumage of the first year. The type was procured on the 20th May at Darjiling. This species was described by Hume in 1872. Brooks has written on the label of the type "*luteiventris*, I think;" and there can be little question he is right. Hume, however, so late as 1881 (S. F. xi, p. 206, note) was still of the opinion that *T. erythrogenys* was "very marked." I regret that I cannot find any character by which to separate it from *T. luteiventris*.

*Distribution.* Nepal, Sikhim, the Bhutan Doars, and the Khási hills. In the Pinwill collection in the British Museum there are some specimens from Simla, and others described as having been procured in the N.W. Himalayas. This species does not appear to be migratory beyond accommodating itself to climate by moving up and down the slopes of the mountains.

### 373. **Tribura mandellii.** *Mandelli's Bush-Warbler.*

Dumeticola mandelli, *Brooks, S. F.* iii, p. 284 (1875), viii, p. 475.
Tribura mandellii (*Brooks*), *Brooks, S. F.* ix, p. 240.
Schœnicola mandellii (*Brooks*), *Hume, S. F.* xi, p. 205.

*Coloration.* Resembles *T. luteiventris*. Differs in having the breast ash-grey and in having a few spots or marks, sometimes obsolete, sometimes more or less distinct, on the throat and breast, in having the bill rather larger, the upper mandible always blackish and the lower one dusky, not yellow throughout.

Of the same size as *T. luteiventris*.

*Distribution.* Sikhim (February to May); Shillong (October).

## Genus **ORTHOTOMUS**, Horsf., 1821.

The genus *Orthotomus* contains three Indian species of rather bright plumage, approaching in this respect *Cryptolopha*, *Abrornis*, *Tickellia*, and *Phyllergates*. From the first of these it differs by the absence of all hairs on the forehead and over the nostrils, and from the other three by the possession of twelve tail-feathers.

The Tailor-birds are remarkable for the skill they display in the construction of their nests. Wherever they occur they are tolerably common, and in every case they are resident, without the slightest tendency to migrate or even to move locally. The sexes differ slightly in each species; and the spring moult is apparently only a partial one, resulting in no change of colour. One species, however, is notable for the acquisition in the spring, by the male alone, of a tail of extraordinary length; in the autumn the ordinary short tail is resumed. The Tailor-birds are furnished with certain long soft hairs springing from the nape.

In this genus the bill is as long as the head, broad and rather flat. There are a few rictal bristles on each side, but no supplementary hairs, and the forehead is very smooth and flat; the wing is very short and rounded, the first primary large and the next two graduated; the tail has twelve feathers and is much graduated; the tarsus is long, and these birds move on the ground with ease.

### *Key to the Species.*

*a.* Upper body-plumage yellowish green.
  *a'*. Axillaries, under wing-coverts, edge of wing, and under tail-coverts white, merely tinged with yellow............ *O. sutorius*, p. 366.
  *b'*. The same parts bright yellow .......... *O. atrigularis*, p. 368.
*b.* Upper body-plumage ashy .............. *O. ruficeps*, p. 368.

### 374. **Orthotomus sutorius.** *The Indian Tailor-bird.*

Motacilla sutoria, *Forst. Ind. Zool.* p. 17 (1781).
Motacilla longicauda, *Gm. Syst. Nat.* i, p. 954 (1788).
Orthotomus longicauda (*Gm.*), *Blyth, Cat.* p. 144; *Horsf. & M. Cat.* i, p. 317; *Jerd. B. I.* ii, p. 165; *Hume, N. & E.* p. 331.
Orthotomus sutorius (*Forst.*), *Sharpe, Ibis*, 1877, p. 109; *Anders. Yunnan Exped., Aves*, p. 642; *Hume, Cat.* no. 530; *Scully, S. F.* viii, p. 305; *Legge, Birds Ceyl.* p. 517; *Barnes, Birds Bom.* p. 214; *Oates in Hume's N. & E.* 2nd ed. i, p. 231.

Sutoria sutoria (*Forst.*), *Sharpe, Cat. B. M.* vii, p. 215; *Oates, B. B.* i, p. 107.

*Phutki,* H.; *Tuntuni,* Beng.; *Patia,* Nep.; *Likku-jitta,* Tel.; *Tavik,* Cing.

*Coloration.* Forehead and anterior half of crown rufous, shading off into ashy on the remainder of the crown and nape; lores greyish white; ear-coverts very pale rufescent ashy, with the shafts white; cheeks and lower plumage dull white, tinged with yellowish and washed with olive-grey on the sides of the body; back, rump, scapulars, and upper tail-coverts yellowish green; middle tail-feathers coloured like the back; the others greenish brown, each feather narrowly tipped white and with a patch of brown in front of the white tip; wings and coverts brown, narrowly edged with yellowish green; thighs rufous. There is a concealed black spot on each side of the neck.

Iris reddish yellow; eyelids plumbeous, the edges reddish yellow; upper mandible dark horny, the lower pale flesh-colour; legs reddish flesh-colour; claws pale horn.

Length about 5; tail 2; wing 1·9; tarsus ·8; bill from gape ·6.

The above are the dimensions of the male and female in winter plumage and of the female in summer plumage. In summer the male acquires very elongated middle tail-feathers and the pair next to them are also long. At this season the total length of the male is 7·5 and the tail 4·5.

The female differs but slightly from the male, merely having the rufous on the head paler.

Tenasserim birds are noticeably smaller, having the wing 1·5 to 1·7, and the nape is tinged with lilac.

*O. maculicollis*, which occurs in the Malay peninsula, may be recognized by the white streaks on the ear-coverts.

*Distribution.* A permanent resident throughout the Empire and Ceylon, ascending the Himalayas and other hill-ranges up to 4000 feet of elevation. This species is no doubt rare in Sind and portions of the Punjab, but it appears to be found in all parts of those Provinces. In Burma its range ceases at Mergui according to Davison, who failed to procure it south of that town. It extends into Siam and China.

*Habits, &c.* Inhabits well-wooded tracts, low jungles, gardens, and also grass-lands where interspersed with bushes. Breeds from May to August, constructing its nest in a receptacle formed by sewing the edges of a leaf, or sometimes two leaves, together. The nest is composed of cotton-down, hair, and fine grass. The eggs, three or four in number, are either reddish white or bluish green, boldly marked with brownish red. They measure about ·64 by ·46.

This bird is generally found solitary or in pairs, and it has a remarkably loud note for its size. When the bird utters this note, the black marks on the sides of the neck become distinctly visible.

### 375. **Orthotomus atrigularis.** *The Black-necked Tailor-bird.*

Orthotomus atrogularis, *Temm. Pl. Col.* livr. 101 (1836); *Horsf. & M. Cat.* i, p. 316; *Sharpe, Ibis,* 1877, pp. 16, 113; *Hume & Dav. S. F.* vi, p. 345; *Hume, Cat.* no. 530 bis; *Oates, S. F.* x, p. 219; *id. B. B.* i, p. 109; *Sharpe, Cat. B. M.* vii, p. 220; *Oates in Hume's N. & E.* 2nd ed. i. p. 235.

Orthotomus flavoviridis, *Moore, P. Z. S.* 1854, p. 79; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 166; xlvii, pt. ii, p. 25.

Orthotomus nitidus, *Hume, S. F.* ii, pp. 478, 507; iii, p. 325.

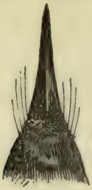

Fig. 116.—Bill of *O. atrigularis.*

*Coloration. Male.* The forehead, crown, nape, and lores chestnut; ear-coverts, cheeks, and chin white, with the blackish bases of the feathers showing through; upper plumage and wing-coverts yellowish green; wings dark brown, edged with green; tail green, the edges lighter, the outer feathers tipped with yellowish and subterminally dark brown; a large patch on the throat black; lower part of the breast and sides of the body ashy; abdomen white; thighs rufous; under wing-coverts, axillaries, edge of wing, and under tail-coverts bright yellow.

*Female.* Differs in having no black patch on the throat. The young resemble the female.

Iris orange-brown; eyelids plumbeous; upper mandible brown, lower one and gape flesh-colour; legs flesh-colour; claws pale horn-colour.

*Distribution.* The lower ranges of the Himalayas, from the Rangit river in Sikhim to the Dhansiri valley, Assam; the Gáro hills; Cachar; the southern portions of Pegu and the whole of Tenasserim. This species extends down the Malay peninsula.

*Habits, &c.* Frequents forest country. Mandelli found the nest near the great Rangit river on the 18th July. Both the nest and eggs resemble those of *O. sutorius.*

### 376. **Orthotomus ruficeps.** *The Red-headed Tailor-bird.*

Edela ruficeps, *Less. Tr. d'Orn.* p. 309 (1831, *nec Less. Cent. Zool.* p. 212, pl. 71).

Orthotomus edela, *Temm., Blyth, Cat.* p. 144.

Orthotomus ruficeps (*Less.*), *Horsf. & M. Cat.* i, p. 316; *Sharpe, Ibis,* 1877, p. 114; *Hume & Dav. S. F.* vi, p. 346; *Hume, Cat.* no. 530 ter; *Sharpe, Cat. B. M.* vii, p. 224; *Oates, B. B.* i, p. 108.

*Coloration. Male.* The forehead, crown, and nape chestnut; back, scapulars, and rump ashy; upper tail-coverts ashy rufous; tail chestnut, the feathers blackish near the basal halves of the shafts; wings and coverts brown edged with ashy; cheeks, lower half of the ear-coverts, and entire lower plumage white, tinged with ashy on the sides of the body; thighs ferruginous.

*Female.* Differs from the male merely in the tail-feathers being blackish near the shafts throughout the whole length, with an expansion of this colour near the tip.

In females the lower mandibles are fleshy pink, upper mandibles horny brown; the legs and feet were fleshy pink in one, in another the feet, claws, and back of tarsus were fleshy, front of tarsus brown; iris in one salmon, in the other deep brown (*Hume & Davison*).

Length about 5; tail 1·5; wing 1·9; tarsus ·8; bill from gape ·8.

*Distribution.* The extreme southern point of Tenasserim, extending down the Malay peninsula to the islands.

## Genus **LUSCINIOLA**, Gray, 1841.

The genus *Lusciniola*, according to my views, contains but one Indian species. Seebohm, on the contrary, in addition to the present species, makes it include *Tribura*, *Arundinax*, *Herbivocula*, and a portion of *Phylloscopus*. From the first of these, *Lusciniola* differs in having fairly strong rictal bristles, and from the other three in having no supplementary hairs in front of the rictal bristles, and there are other differences in the shape of the wing and tail.

In this genus there appears to be a complete spring moult, but unaccompanied by any change of structure or by any noteworthy alteration of colour. The sexes are alike.

The Sedge-Warbler is quite aquatic in its habits, being always found in reed-beds in or close to water, from which it is not easily dislodged. It is very likely to be a resident species in India as it is in Southern Europe.

*L. melanopogon* recalls to mind *Acrocephalus bistrigiceps*, from which, however, it may be separated at once by its large first primary.

*Lusciniola* has a slender bill about two thirds the length of the head, two clearly visible rictal bristles but no supplementary hairs in front of them, the forehead being smooth and sharply defined; the wing is fairly long, the first primary less than half the length of the second, which reaches nearly to the tip of the wing; the tail is well graduated, and the tarsus of considerable length.

### 377. **Lusciniola melanopogon.** *The Moustached Sedge-Warbler.*

Sylvia melanopogon, *Temm. Pl. Col.* pl. 245, f. 2 (1823).
Lusciniola melanopogon (*Temm.*), *Hume, S. F.* i, p. 190; *id. Cat.*

no. 518 bis; *Reid, S. F.* x, p. 44; *Seebohm, Cat. B. M.* v, p. 132; *Barnes, Birds Bom.* p. 211.

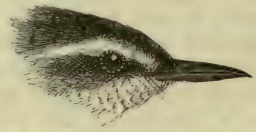

Fig. 117.—Head of *L. melanopogon.*

*Coloration.* Forehead, crown, and nape black, edged with rufous-brown; hind neck, back, and scapulars rufous-brown, streaked with dark brown; rump and upper tail-coverts plain rufous-brown; wings and tail brown, edged with rufous-brown; lores and under the eye dark brown; a white supercilium from the nostrils to the nape; ear-coverts mixed rufous and white; chin, throat, and abdomen white; remainder of lower plumage very pale buff; axillaries and under wing-coverts white.

Bill deep greenish brown above, below lighter and fleshy at base; legs, feet, and claws greenish brown; iris brown (*Bingham*).

Length about 6; tail 2·3; wing 2·5; tarsus ·85; bill from gape ·65.

*Distribution.* Sind, and eastwards near Delhi, Etáwah, and Lucknow, in swamps and reed-beds on the margins of lakes and rivers. This bird is probably a resident in all these places, although no one appears to have procured it in the summer. It extends westward into Europe.

## Genus **CISTICOLA**, Kaup (1829).

The genus *Cisticola* contains four Indian species of small size, which, on account of their complex plumage, have given much trouble to the ornithologist. They are now much better understood than they were a few years ago. The Indian species all have two complete moults a year, in the case of one giving rise to no alteration of colour worthy of note, but in the other three causing a very decided change of colour between the summer and the winter plumages, and accompanied in all four by a radical change in the form and length of the tail. In three species the sexes are alike in the winter only, but in the fourth the sexes are alike throughout the year.

Sharpe has done excellent work in his Catalogue in bringing these troublesome birds into some order, but he has united three Indian species, an error of which I was myself guilty a few years ago. With the larger amount of material now available, however, in the Hume and Tweeddale collections, it is possible to arrive at safer conclusions.

The Fantail-Warblers are resident species in India, inhabiting grass and corn, but are in no degree aquatic in their habits. They feed a good deal on the ground, and are not shy or difficult to observe.

I restrict the genus to those Warblers with a seasonal change of length of tail, accompanied by a short first primary (less than half the length of the second) and a very slender, sharp-pointed bill. These characters exclude *Franklinia*, which has a large first primary, a shorter and rounder wing, and a larger and blunt bill.

These Warblers have a moderate tail, almost short in summer, evenly rounded, and forming a perfect fan, whence the English name; there are two short rictal bristles, no supplementary hairs, and the forehead is smooth.

### *Key to the Species.*

| | |
|---|---|
| *a.* Upper plumage streaked; the crown plain. | |
| *a'.* Crown chestnut .............. | *C. erythrocephala* ♂ æst., p. 371. |
| *b'.* Crown pale yellow ............ | *C. tytleri* ♂ æst., p. 372. |
| *c'.* Crown golden yellow .......... | *C. volitans* ♂ æst., p. 373. |
| *b.* Upper plumage streaked, including the crown. | |
| *d'.* Tips to all the tail-feathers indistinct, dull rufous-white. | |
| *a''.* Crown rufous with black streaks, the rufous preponderating .. | |
| *a'''.* Back ashy, streaked with black .................. | *C. volitans* ♀ æst. & ? ♂ ♀ hyem., p. 373. |
| *b'''.* Back rufous, streaked with black .................. | *C. erythrocephala* ♀ æst. & ♂ ♀ hyem., p. 371. |
| *b''.* Crown black, with narrow fulvous edges, the black preponderating much; a broad rufous collar round the hind neck .. | *C. tytleri* ♀ æst. & ♂ ♀ hyem., p. 372. |
| *e'.* Tips to the lateral tail-feathers very broad and pure white .... | *C. cursitans*, p. 374. |

### 378. **Cisticola erythrocephala.** *The Red-headed Fantail-Warbler.*

Cisticola erythrocephala, *Jerd., Blyth, J. A. S. B.* xx, p. 523 (1851); *Jerd. B. I.* ii, p. 175; *Hume, S. F.* v, pp. 94, 351, 406; *id. Cat.* no. 540; *Davison, S. F.* x, p. 392; *Terry, S. F.* x, p. 476.
Cisticola exilis, *Vig. & Horsf., Sharpe, Cat. B. M.* vii, p. 269 (part.).
*The Red-headed Grass-Warbler*, Jerd.

*Coloration. Male.* In summer the forehead, crown, and nape are chestnut, shading off into dull rufous, which forms a collar on the hind neck and sides of neck; back rufous, streaked with black; rump and upper tail-coverts rufous-brown; tail black with white tips; wings and coverts dark brown, edged with rich fulvous; sides ot the head and the whole lower plumage bright ferruginous.

*Female.* In summer resembles the male in summer, but the forehead, crown, and upper tail-coverts are black, each feather edged with rufous; the tail is broadly edged with olive-brown, tipped with dull rufous-white, and subterminally black, these marks being very clear when viewed from below.

The male and female in winter resemble each other and are like the female in summer.

Iris burnt sienna; lower mandible, legs, feet, and claws fleshy; upper mandible pale brown (*Davison*).

Wing 1·9; tarsus ·75; bill from gape ·55; in summer the tail is 1·5, and the total length of the bird about 4; in winter the tail is 2, and the total length about 4·5.

The bird described by Jerdon appears to have been a male in summer plumage, with a tail of the length it usually is in winter.

The young are like the adults in winter, but differ in being rich yellowish below.

*Distribution.* This bird has been found at Saugor in the Central Provinces; on the Brahmagiris in Coorg, and the Peria Forest hills; in the Karkur Pass leading from the Wynaad into Lower Malabar; and upon the Palni hills, at Mount Nebo, Kukal, and Kodaikánal; in all which places there is no doubt this is a resident species. It frequents grass like the other Fantail-Warblers.

### 379. **Cisticola tytleri.** *The Yellow-headed Fantail-Warbler.*

Cisticola tytleri, *Blyth, fide Jerd. B. I.* ii, p. 176 (1863); *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 199; *Hume, S. F.* v, pp. 94, 350; *id. Cat.* no. 541; *id. S. F.* xi, p. 211.

Cisticola melanocephala, *Anders. P. Z. S.* 1871, p. 212; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 165, pl. x, fig. 1, xlv, pt. ii, p. 80; *Hume, S. F.* v, pp. 93, 350; *Anders. Yunnan Exped., Aves,* p. 641; *Hume, Cat.* no. 539 ter.

Cisticola ruficollis, *Wald. A. M. N. H.* (4) vii, p. 241 (1871); *Hume, S. F.* iii, p. 283.

Cisticola exilis, *Vig. & Horsf., Sharpe, Cat. B. M.* vii, p. 269 (part.).

*The Cream-coloured Grass-Warbler,* Jerd.

*Coloration. Male.* In summer the forehead and crown are clear pale yellow; nape, hind neck, and sides of neck dusky yellow; sides of the head and the whole lower plumage pale fulvous or yellowish buff; back ashy brown, streaked with black; wing-coverts and quills dark brown, edged with fulvous; rump and upper tail-coverts fulvous-yellow; tail black, narrowly tipped white.

*Female.* In summer the forehead, crown, and upper tail-coverts are streaked with black; the hind neck and the sides of the neck rufous-brown, forming a broad collar; otherwise she resembles the male.

Both sexes in winter have the forehead, crown, and nape deep black, with narrow fulvous edges; hind neck and sides of neck rufous, forming a broad, immaculate collar; back and upper tail-coverts black, with fulvous edges; rump plain fulvous; tail dark brown, very broadly edged with olive-brown and subterminally darker, the middle pair of feathers being almost entirely olive-brown; all the feathers tipped with dull rufous-white; wings and coverts dark brown, edged with fulvous; ear-coverts brown with pale shafts; sides of the head and the whole lower plumage pale fulvous.

Bill fleshy brown; legs fleshy yellow; iris buff (*Jerdon*).

Wing 1·8; tarsus ·7; bill from gape ·5; in summer both sexes measure about 4 in length, and the tail is 1·2; in winter the length of both sexes is about 4·5, and that of the tail 1·9.

*Distribution.* The base of the Himalayas from the Bhutan Doars to Dibrugarh and Sadiya; the Khási hills; Dacca; Manipur and Bhamo.

### 380. **Cisticola volitans.** *The Golden-headed Fantail-Warbler.*

Calamanthella volitans, *Swinh. Journ. N. China As. Soc.* 1859, p. 226.
Cisticola volitans (*Swinh.*), *Oates, S. F.* x, p. 219; *Oates in Hume's N. & E.* 2nd ed. i, p. 236.
Cisticola exilis, *Vig. & Horsf., Oates, B. B.* i, p. 117; *Sharpe, Cat. B. M.* vii, p. 269 (part.).

*Coloration. Male.* In summer the forehead, crown, and nape are golden yellow; the hind neck duller, tinged with brown, and separated from the nape by a dusky band; back ashy, streaked with black; rump and upper tail-coverts fulvous-yellow; tail black, tipped with dull white; wings and coverts dark brown, edged with fulvous; sides of the head and the whole lower plumage pale fulvous or yellowish buff; the abdomen whitish.

*Female.* In summer resembles the male in summer, but the forehead and crown are dusky golden yellow streaked with dark brown; the hind neck and sides of the neck dull golden yellow, without streaks, forming a more or less uniform collar; tail black, edged with olive-brown and tipped with dull rufous-white, and with a subterminal black band when viewed from below.

The winter plumage of the Burmese bird is not known. It will probably be blackish above, and similar in general to that of *C. tytleri.*

Iris hazel-brown; upper mandible dark brown; lower mandible and gape fleshy pink; legs and claws flesh-colour.

In summer the length is about 4; the tail 1·25; wing 1·8; tarsus ·75; bill ·5. The total length and the length of the tail in winter are not known.

I provisionally identify the Burmese bird with Swinhoe's *C. volitans*, but I am not satisfied that the two are absolutely identical, nor that the Burmese and Chinese bird, or either of them, if distinct, extends down to Australia. The series from each country is at present inadequate for a correct opinion to be arrived at.

*Distribution.* Southern Pegu, along the grassy jungles on both sides of the Pegu Canal from one lock to the other, but most common where the soil is sandy and suitable for the growth of thatch-grass.

*Habits, &c.* Similar to those of *C. cursitans*, but the present species has a more musical and bell-like note. It breeds in May and June and probably throughout the rains, constructing a beautiful nest, composed entirely of the flowering heads of grass, and attached to several stalks of grass growing in a thick clump. The eggs are a pale blue spotted with rusty brown, and measure ·55 by ·43.

### 381. **Cisticola cursitans.** *The Rufous Fantail-Warbler.*

Sylvia cisticola, *Temm. Man. d'Orn.* 2ᵉ éd. i, p. 228, pl. (1820); *id. Pl. Col.* pl. 6, fig. 3 (1820).
Prinia cursitans, *Frankl. P. Z. S.* 1831, p. 118.
Cisticola schœnicola, *Bp. Comp. List B. Eur. & N. Amer.* p. 12 (1838); *Blyth, Cat.* p. 145; *Jerd. B. I.* ii, p. 174; *Hume, N. & E.* p. 343; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, pl. x, fig. 2.
Cisticola omalura, *Blyth, Cat.* p. 145; *id. J. A. S. B.* xx, p. 176 (1851).
Cisticola homalura, *Hume, S. F.* v, pp. 90, 350; *id. Cat.* no. 541 bis.
Cisticola cursitans (*Frankl.*), *Blyth, Cat.* p. 145; *Horsf. & M. Cat.* i, p. 324; *Hume, S. F.* v, p. 90; *id. Cat.* no. 539; *Legge, Birds Ceyl.* p. 531; *Barnes, Birds Bom.* p. 217; *Oates in Hume's N. & E.* 2nd ed. i, p. 236.
Cisticola manipurensis, *Godw.-Aust. P. Z. S.* 1874, p. 47; *id. J. A. S. B.* xliii, pt. ii, p. 165, pl. ix, fig. 1; *Hume, S. F.* iii, p. 397, v, p. 90; *id. Cvt.* no. 539 bis.
Cisticola cisticola (*Temm.*), *Oates, B. B.* i, p. 115; *Sharpe, Cat. B. M.* vii, p. 259.

*The Rufous Grass-Warbler,* Jerd.; *Ghas ka-phutki* or *Ghas ka-pit-pitti,* Hind.; *Yedru-jitta,* Tel.; *Kher-ghusa,* H. at Bhagulpore; *Tuntunia,* at Monghyr.

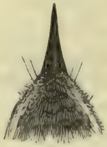

Fig. 118.—Bill of *C. cursitans.*

*Coloration.* In summer the whole upper plumage is dark brown or black, with rufous margins to all the feathers; rump plain rufous; wings and coverts dark brown, edged with fulvous; tail brown, edged with rufous, broadly tipped white, subterminally deep black, and with a rufous patch in front of this black; lores, supercilium, cheeks, and the whole lower plumage buffy white; ear-coverts brownish.

In winter the plumage is practically the same as in summer, but the tail is without the rufous patches above the subterminal black spots.

Iris light yellowish brown; bill flesh-coloured, dark along the culmen; legs and claws pinkish; mouth black at the breeding-season, dusky at other times.

In summer the length is about 4·5; tail 1·5; wing 2·1; tarsus ·8; bill from gape ·6; in winter the tail measures 1·75, and the total length is correspondingly increased.

*Distribution.* Every portion of the Empire and Ceylon where the country is suitable, but not on hills at any great elevation. Outside our limits this bird has an immense range in Europe, Asia, and Africa.

*Habits, &c.* This species frequents corn-fields and grass-land, and is everywhere abundant in such surroundings. It has a sharp clear note, mostly uttered while the bird is soaring in the air, which it frequently does, rising from one clump of grass and descending to another. It breeds from April to October, constructing a deep tubular nest in a clump of grass, to the stems of which the structure is attached. The nest is made of fine grass chiefly, to which are added cobwebs and vegetable down. The eggs, usually five in number, are white, or tinged with green, speckled with red and purple, and measure ·59 by ·46.

## Genus **FRANKLINIA**, Blyth, 1863.

The genus *Franklinia* contains four Indian species, three of which have hitherto been included in *Prinia* by all ornithologists except Sharpe. *Prinia* was instituted by Horsfield for *Prinia familiaris* of Java, a Wren-Warbler with ten tail-feathers; and there can be no doubt that it is desirable to keep the Wren-Warblers in two separate genera, *Prinia* being retained for the birds with ten tail-feathers, and *Franklinia* for those with twelve. I have already stated my reasons why the latter birds cannot be included in *Cisticola*.

The history of one species of *Franklinia* is incomplete. The other three have a complete double moult every year attended by a change in the length of the tail, and two have a marked change of colour as well. The sexes are always alike.

The Wren-Warblers are all resident species or merely partial migrants on the hills only. They frequent grass and bushes, either in the open or on the outskirts of forest, and are fairly abundant, except one species, about which little is known.

In these birds the bill is about two thirds the length of the head, slender, but not so finely pointed as in *Cisticola*. The rictal bristles are strong and two in number. There are no supplementary hairs in front of them, and the feathers of the forehead are compact and smooth. The wing is very rounded and feeble, the first primary more than half the length of the second, and the next three graduated. The tail, even in summer, is very ample and well-graduated. The tarsus is strong.

### *Key to the Species**.

*a*. Forehead and crown of same colour.
  *a′*. Tips of tail-feathers shorter than width of feathers and dull white.
    *a″*. Crown and upper plumage of same colour ........................ *F. gracilis*, p. 376.

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* I cannot identify *Prinia humilis*, Hume, Ibis, 1870, p. 144, said to have twelve tail-feathers. Hume apparently no longer considers it a good species, as he enters it in his 'Catalogue' with a note of doubt. It appears from the description to be *Franklinia gracilis*.

| | |
|---|---|
| *b''*. Crown darker than upper plumage .. | *F. rufescens*, p. 377. |
| *b'*. Tips of tail-feathers longer than width of feathers and pure white ............ | *F. buchanani*, p. 378. |
| *b*. Forehead rufous; crown bluish ashy...... | *F. cinereicapilla*, p. 379. |

### 382. **Franklinia gracilis.** *Franklin's Wren-Warbler.*

Prinia gracilis, *Frankl. P. Z. S.* 1831, p. 119; *Blyth, Cat.* p. 143; *Jerd. B. I.* ii, p. 172; *Hume, N. & E.* p. 341; *id. S. F.* iii, p. 136; *Anders. Yunnan Exped., Aves,* p. 641; *Hume, Cat.* no. 536; *Brooks, S. F.* viii, p. 476; *Barnes, Birds Bom.* p. 216.

Prinia hodgsoni, *Blyth, J. A. S. B.* xiii, p. 376 (1844); *Blyth, Cat.* p. 143; *Horsf. & M. Cat.* i, p. 322; *Jerd. B. I.* ii, p. 173; *Hume, N. & E.* p. 342; *Hume, S. F.* iii, p. 136; *Legge, S. F.* iii, p. 203; *Anders. Yunnan Exped., Aves,* p. 641; *Hume & Dav. S. F.* vi, p. 348; *Oates, S. F.* vii, p. 48; *Legge, Birds Ceyl.* p. 523; *Hume, Cat.* no. 538; *Barnes, Birds Bom.* p. 217; *Hume, S. F.* xi, p. 208.

Prinia rufula, *Godw.-Aust. P. Z. S.* 1874, p. 47; *id. J. A. S. B.* xliii, pt. ii, p. 165, pl. ix, fig. 2; *Hume, S. F.* iii, p. 397; *id. Cat.* no. 536 ter.

Cisticola gracilis *(Frankl.), Sharpe, Cat. B. M.* vii, p. 253; *Oates, B. B.* i, p. 119.

Franklinia gracilis (*Frankl.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 240.

*Franklin's Wren-Warbler*; *the Malabar Wren-Warbler,* Jerd.

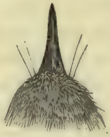

Fig. 119.—Bill of *F. gracilis.*

*Coloration.* In summer the upper plumage, sides of the head, wings, and tail are ashy grey, the wings edged with pale rufous, the tail with a subterminal patch of brown on each feather and tipped with whitish; ear-coverts whitish in front, greyish behind; cheeks, chin, throat, abdomen, vent, and under tail-coverts white; breast ashy; under wing-coverts and axillaries white.

In winter the upper plumage and tail are rufous-brown; the wings brown, broadly edged with rufous; the tail with subterminal dark patches and white tips; under plumage white, tinged with fulvous; a whitish line over the lores reaching to the eye.

Iris hazel-red; edges of eyelids orange; legs yellowish orange; claws horn-colour; bill dark brownish black; mouth black. After the breeding-season the mouth becomes flesh-coloured and the edges of the eyelids change to plumbeous.

Length 4·5; tail 1·9; wing 1·8; tarsus ·7; bill from gape ·55; in winter the tail is longer, measuring about 2·4 inches, and the total length of the bird is correspondingly increased.

*Distribution.* The whole of the Empire and Ceylon, except Sind and the more desert portions of Rajputana. This species is also absent apparently from Central and Southern Tenasserim. With these exceptions it is generally spread over the whole country. It ascends the Himalayas and other mountains to a considerable elevation, for I have seen specimens collected in Kashmir, at Murree, and Darjiling, in Native Sikkim, and at Shillong. It is everywhere a constant resident except on the higher parts of the hills, which it probably abandons on the approach of winter.

*Habits, &c. F. gracilis* frequents forests and wooded parts of the country, as well as grass-lands. It breeds throughout the rains, constructing a nest of grass in the cavity formed by a leaf, the edges of which are skilfully stitched together. The eggs, three in number, are pale blue, spotted with reddish brown, or sometimes entirely unspotted, and measure ·58 by ·42.

### 383. **Franklinia rufescens.** *Beavan's Wren-Warbler.*

Prinia rufescens, *Blyth, J. A. S. B.* xvi, p. 456 (1847); *id. Cat.* p. 143; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 166; *Anders. Yunnan Exped., Aves,* p. 640; *Hume, Cat.* no. 536 bis; *id. S. F.* xi, p. 211.

Prinia beavani, *Wald. P. Z. S.* 1866, p. 551; *Hume, S. F.* iii, p. 136; *Oates, S. F.* v, p. 158; *Hume & Dav. S. F.* vi, p. 349; *Hume, Cat.* no. 538 bis; *Bingham, S. F.* ix, p. 186; *Oates, S. F.* x, p. 219.

Prinia poliocephala, *A. Anders. P. Z. S.* 1878, p. 370, pl. xix; *Hume, S. F.* vii, p. 319; *id. Cat.* no. 535 bis; *id. S. F.* ix, p. 286.

Cisticola beavani (*Wald.*), *Sharpe, Cat. B. M.* vii, p. 255; *Oates, B. B.* i, p. 120.

Cisticola poliocephala (*A. Anders.*), *Sharpe, Cat. B. M.* vii, p. 257.

Franklinia rufescens (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 242.

*Coloration.* In summer the lores are brown; a streak from the nostrils over the eye white; forehead, crown, and nape ashy brown; back, wing-coverts, scapulars, rump, and upper tail-coverts rufous-brown; tail more rufous, tipped with white, and each feather with a large subterminal spot of brown; wings brown, edged with rufous-brown, and the tertiaries wholly of this colour; sides of the head ashy; lower plumage white, washed with buff, brighter on the flanks.

In winter the forehead, crown, and nape are a paler ashy, not contrasting so much with the plumage of the remaining upper parts.

Iris reddish brown; bill horn-colour, pinkish at base; legs and claws pinkish; mouth flesh-colour.

Wing 1·65; tarsus ·75; bill from gape ·6; in summer the total length is about 4·5 and the tail 1·7; in winter the corresponding dimensions are 5 and 2.

Apart from the dark head, this species may be distinguished from *F. gracilis* by its much stronger bill, which, moreover, never turns black in the summer.

*Distribution.* Throughout the lower ranges of the Himalayas from Kumaun to Upper Assam, and southwards from the latter Province through Burma to the extreme end of Tenasserim.

*Habits, &c.* Frequents the outskirts of forests or well-wooded parts of the country. Breeds during the monsoon, commencing in May. The nest, made of fine grass, is placed in the cavity formed by stitching together the two edges of a soft leaf of a tree or shrub. The eggs, three in number, are glossy pale blue, speckled with reddish brown, and measure ·61 by ·45.

### 384. **Franklinia buchanani.** *The Rufous-fronted Wren-Warbler.*

Prinia buchanani, *Blyth, J. A. S. B.* xiii, p. 376 (1844).
Drymoica buchanani, *Blyth, Cat.* p. 143.
Franklinia buchanani (*Blyth*), *Jerd. B. I.* ii, p. 186; *Hume, N. & E.* p. 358; *Stoliczka, J. A. S. B.* xli, pt. ii, p. 241; *Hume, S. F.* i, p. 195; *Adam, S. F.* i, p. 382; *Butler, S. F.* iii, p. 486; *Hume, Cat.* no. 551; *Reid, S. F.* x, p. 47; *Barnes, Birds Bom.* p. 223; *id. Journ. Bom. N. H. Soc.* 1886, p. 51; *Oates in Hume's N. & E.* 2nd ed. i, p. 243.
Cisticola buchanani (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 246.

*Coloration.* At all seasons of the year the upper plumage and the sides of the neck reddish brown, brightest on the forehead and crown; wings and coverts with broad edges of the same; tail brown, faintly cross-barred, all the feathers except the middle pair broadly tipped white and subterminally darker; lores and a supercilium white; ear-coverts and under the eye whitish; lower plumage white, the flanks, vent, and under tail-coverts tinged with fulvous; thighs ferruginous.

Iris light brown to orange-red; upper mandible dusky, lower pale fleshy; legs and feet pale fleshy brown.

Wing 2·1; tarsus ·7; bill ·6; total length in summer about 5, tail 2·3; total length in winter 5·5, tail 2·7.

Although this bird has two complete moults a year there is no change in the colour of the plumage in summer and winter, nor does the bill become black in summer.

*Distribution.* Throughout Sind, Rajputana, the lower part of the Punjab, the North-western Provinces, Central India, and the Central Provinces, extending to the east as far as Lohardugga. Jerdon states that this bird is found throughout the Carnatic and the tableland of Southern India, and there are three specimens in the British Museum labelled Madras. I have seen no recently collected specimens from any place south of the latitude of Ahmednagar.

*Habits, &c.* Found commonly in small troops in open country. Breeds from May to September, constructing a nest of grass and vegetable fibre of various shapes, sometimes like a purse or a cup, at other times globular. It is built in a low bush as a rule. The eggs, four or five in number, are whitish speckled with dingy red, and measure ·62 by ·48.

### 385. **Franklinia cinereicapilla.** *Hodgson's Wren-Warbler.*

Prinia cinereocapilla, *Hodgs., Moore, P. Z. S.* 1854, p. 77; *Horsf. & M. Cat.* i, p. 322; *Jerd. B. I.* ii, p. 172; *Hume, N. & E.* p. 341; *Brooks, S. F.* iii, p. 242; *Hume, S. F.* vii, p. 320; *id. Cat.* no. 537; *id. S. F.* ix, p. 286.
Cisticola cinereicapilla (*Moore*), *Sharpe, Cat. B. M.* vii, p. 256.
Franklinia cinereicapilla (*Hodgs.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 246.

*Coloration.* In winter the forehead and a supercilium are rufous; crown, nape, lores, and a band behind the eye dark bluish ashy, narrowly cross-barred with blackish; upper plumage and edges of wing bright rufous; tail rufous, tipped paler, and with a subterminal dark band; cheeks, ear-coverts, and the whole lower plumage pale fulvous. The summer plumage is not known. In the dry state the bill is deep black and the legs fleshy brown.

Length in winter about 4·7; tail in winter 2·4; wing 1·7; tarsus ·8; bill from gape ·6.

*Distribution.* This rare species was procured by Hodgson in some part of Nepal, and his birds are in the British Museum. I have seen specimens that were procured by Mandelli in the Bhutan Doars, and by Brooks at Dhunda on the Bhagiruthee river. Blanford (J. A. S. B. xl, pt. ii, p. 165) notes this bird from Sikhim, but his description does not in the least agree with this species, but rather with *F. rufescens.*

Hume surmises (*l. c.*) that *F. cinereicapilla* may be an abnormal variety of *Prinia socialis*, but the different number of tail-feathers in the two species is quite sufficient to negative such an idea.

## Genus **LATICILLA**, Blyth, 1845.

The genus *Laticilla* contains two Indian species characterized by very large tails. It is not certain whether their spring moult is complete, but the tail is certainly moulted and differs in length at the two seasons. The upper plumage is streaked in both species.

These birds frequent reeds and grass, and Hume describes the Sind species as being the greatest skulker he knows of after *Cettia orientalis.*

The bill is about half the length of the head, there are three rictal bristles, and the members of this genus agree with all other Reed-birds in having no supplementary hairs, and in having the frontal feathers short and smooth. The wing is very short and rounded, the first primary large, and the next three graduated; the tail is very long and greatly graduated.

### *Key to the Species.*

*a.* Under tail-coverts dark ferruginous.......... *L. burnesi,* p. 380.
*b.* Under tail-coverts greyish white like abdomen. *L. cinerascens,* p. 381.

### 386. **Laticilla burnesi.** *The Long-tailed Grass-Warbler.*

Eurycercus burnesii, *Blyth, J. A. S. B.* xiii, p. 374 (1844); *Jerd. B. I.* ii, p. 74.
Sphenæacus burnesii (*Blyth*), *Blyth, Cat.* p. 140.
Laticilla burnesi (*Blyth*), *Hume, S. F.* i, p. 180; *Butler, S. F.* vii, pp. 182, 191; *Hume, Cat.* no. 443; *Doig, S. F.* viii, p. 373; *Sharpe, Cat. B. M.* vii, p. 119; *Barnes, Birds Bom.* p. 184; *Oates in Hume's N. & E.* 2nd ed. i, p. 247.

*The Long-tailed Reed-bird,* Jerd.; *Hidela,* Sind.

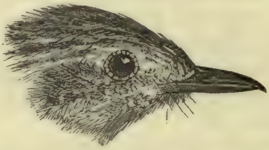

Fig. 120.—Head of *L. burnesi.*

*Coloration.* Lores, a ring round the eye, and a narrow supercilium white; sides of the head and cheeks white, or pale rufescent streaked with black; forehead, crown, nape, hind neck, sides of the neck, and the whole back and scapulars rufous-brown broadly streaked with black, and the rufous brighter on the mantle; rump and upper tail-coverts olive-brown, with obsolete shaft-streaks; tail olive-brown, darker along the shafts, the laterals tipped with fulvous; wing-coverts olive-brown with darker centres; quills with the outer webs olive-brown; chin, throat, middle of breast and abdomen white; sides of the breast and abdomen olivaceous, streaked with brown; under tail-coverts dark ferruginous.

Bill brown above, pale straw below; legs, feet, and iris brown (*Butler*).

Length up to 7·5; tail in winter up to 4·3, in summer 3·7; wing 2·2; tarsus ·8; bill from gape ·65.

*Distribution.* Upper Sind from the junction of the Chenab and Indus rivers to Lárkhána, and also on the Eastern Nára, where Doig found this species breeding. Jerdon records it from Monghyr on the Ganges in March.

*Habits, &c.* Breeds from March to September, constructing a nest in a tussock of grass. The nest, the shape of which is not described by Doig, but which, judging from his dimensions, is cup-shaped, is composed of coarse grass lined with finer materials. The eggs, three in number, are pale green blotched with purplish brown, and measure ·72 by ·54.

### 387. **Laticilla cinerascens.** *Day's Long-tailed Grass-Warbler.*

Eurycercus cinerascens, *Wald. A. M. N. H.* (4) xiv, p. 156 (1874); *Hume, S. F.* iii, p. 280; *id. Cat.* no. 443 bis.
Laticilla cinerascens (*Wald.*), *Sharpe, Cat. B. M.* vii, p. 119.

*Coloration.* Upper plumage ashy olive streaked with brown; upper wing-coverts and visible portions of quills plain ashy olive, with the shafts and the portion near them very dark brown, and probably with fulvous tips; lores, a ring round the eye, cheeks, chin, and throat pure white; remainder of lower plumage pale greyish white; upper part of ear-coverts ashy olive, lower part albescent.

Bill in the dry state dark brown, with the base of the lower mandible pale; legs dark brown.

Length about 6; tail 3·2, and probably up to 4; wing 2; tarsus ·8; bill from gape ·6.

The only two specimens of this bird known are in the British Museum. They are poor skins, and it is difficult to draw up a very accurate description from them, especially of the tail, which is very much worn down in both examples.

*Distribution.* Dhubri, Lower Assam, where the types were procured by Dr. Day on the 27th November, 1873.

## Genus **GRAMINICOLA**, Jerd., 1863.

The genus *Graminicola* contains but one species, and this is found in India. It has only a partial moult in the spring, confined apparently to the tail, which varies considerably in length at the two seasons. The sexes are alike. The upper plumage is streaked, and the tail is very ample.

This bird frequents grass-lands, and is very fond of concealment. It is a resident species, probably never moving more than a few yards from its selected home.

The bill of this genus is tolerably stout and about half the length of the head, and there are four large rictal bristles, but no supplementary hairs, and the feathers of the forehead are firm and close. The wing is like that of *Laticilla*. The tail is very large and greatly graduated.

### 388. **Graminicola bengalensis.** *The Large Grass-Warbler.*

? Megalurus verreauxi, *Tytler, A. M. N. H.* (2) xiv, p. 176 (1854) (descr. nulla).
Graminicola bengalensis, *Jerd. B. I.* ii, p. 177 (1863); *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 167; xlv, pt. ii, p. 80; *Hume, Cat.* no. 542; *id. S. F.* ix, p. 255; *Sharpe, Cat. B. M.* vii, p. 234; *Oates in Hume's N. & E.* 2nd ed. i, p. 249.
Drymoica bengalensis (*Jerd.*), *Hume, N. & E.* p. 345.

*Coloration.* Forehead, crown, nape, back, and upper tail-coverts black, each feather edged with tawny fulvous; rump plain tawny fulvous; the feathers of the hind neck black with white margins, forming a collar different in appearance to the back; wing-coverts and quills dark brown, the former very broadly, the latter very narrowly edged with tawny fulvous; tail black, margined with olivaceous, broadly tipped white, and indistinctly cross-barred; lores, a supercilium, and round the eye greyish white; ear-coverts rufescent; sides of neck, breast and body, thighs, and under tail-coverts ochraceous, the latter with black shaft-streaks.

Legs and feet pale fleshy brown; bill brown, pale fleshy on basal half of lower mandible; iris reddish brown (*Hume*).

Wing 2·4; tarsus ·9; bill from gape ·7; length in summer about 6·5, of tail 2·8; length in winter about 7, of tail 3·5.

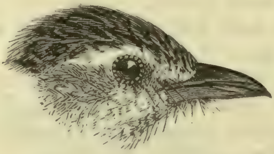

Fig. 121.—Head of *G. bengalensis*.

The plumage of this bird is subject to considerable variation, as is the case in all birds that live in reeds and get the margins of their feathers worn away in various degrees regardless of season, sex, or age.

*Distribution.* Jerdon first observed this bird on the banks of the Ganges, and subsequently in Cachar. It occurs in the Bhutan and Buxa Doars and up the Assam valley to Sadiya. It appears to be common in Sylhet and Cachar, and both Hume and Godwin-Austen procured it in Manipur. In the British Museum there is a specimen from Siam.

*Habits, &c.* A nest, supposed to be of this species, is said by Hume to be a massive and deep cup, fixed between three reeds, constructed of sedge and vegetable fibre firmly wound together and round the reeds, and lined with fine grass-roots. The egg is said to be a dull green, faintly speckled with dull purplish and reddish brown.

## Genus **MEGALURUS**, Horsf., 1821.

The genus *Megalurus* contains one Indian species which occurs in a somewhat erratic manner over a considerable portion of the Empire. This bird appears to have little or nothing of a spring moult; its tail is not changed, and probably what little moult it has at that season is confined to some of the body-feathers. The young, however, are intensely and richly coloured, which shows the affinity of this species for the Warblers.

*Megalurus* frequents plains of grass and the banks of rivers, feeds on the ground a good deal, and is not so fond of hiding itself as some of its allies; in fact, I have found it an easy bird to observe. It has a fine song, loud and cheerful, uttered as the bird flies up into the air and descends with motionless wings some fifty yards from where it started.

In *Megalurus* the sexes are alike; the bill is strong; the wing is less rounded than in most of the sedentary Warblers, the third primary reaching to the tip of the wing, and the first being of very large size. The tail is very much longer than the wing, pointed and much graduated. The rictal bristles are strong, there are no supplementary hairs, and the feathers of the forehead are remarkably short and close. Hume has drawn attention to the curious formation of the foot: it is deeply cleft between the middle and inner toe, and this latter is partially reversible. This peculiarity explains the rapidity and ease with which the bird climbs about amongst reeds and reed-grass.

### 389. **Megalurus palustris.** *The Striated Marsh-Warbler.*

Megalurus palustris, *Horsf. Trans. Linn. Soc.* xiii, p. 159 (1820); *Blyth, Cat.* p. 139; *Horsf. & M. Cat.* i, p. 330; *Jerd. B. Ind.* ii, p. 70; *Hume, N. & E.* p. 276; *Ball, S. F.* iv, p. 233; *Hume & Dav. S. F.* vi, p. 295; *Hume, Cat.* no. 440; *Anders. Yunnan Exped., Aves,* p. 639; *Oates, S. F.* x, p. 209; *id. B. B.* i, p. 106; *Sharpe, Cat. B. M.* vii, p. 123; *Hume, S. F.* xi, p. 175; *Oates in Hume's N. & E.* 2nd ed. i, p. 249.

*The Striated Marsh-Babbler,* Jerd.; *Ial-aggin,* H.; *Nul-claypee,* Assam.

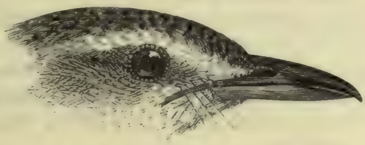

Fig. 122.—Head of *M. palustris.*

*Coloration.* Upper plumage fulvous-brown, the head rather rufous, and each feather with a dark brown or blackish stripe down the shaft, the feathers of the back and scapulars each with a broad black stripe down the middle; wing-coverts blackish brown, broadly edged with fulvous-brown; quills blackish brown, the primaries narrowly, and the other quills broadly, edged with rufous-brown; tail fulvous-brown, the shafts and the portions of feathers near them dusky; a broad supercilium, becoming indistinct near the nape, greyish white; chin and throat white; sides of the neck and all the lower plumage earthy brown, tinged with buff on the flanks, vent, and under tail-coverts; a few streaks of brown on the breast and under tail-coverts.

The young are very similar to the adult, but they have the supercilium and the whole lower plumage suffused with yellow; the adult plumage is assumed in February.

Iris pale brown; eyelids plumbeous; bill horny brown, dark on the upper mandible, and rather pale on the lower; mouth dark bluish brown; legs pale pink; claws pinkish horn-colour.

Length up to 10; tail 4·9; wing 4; tarsus 1·4; bill from gape 1; the female is considerably smaller.

*Distribution.* This bird has rather a remarkable area of distribution so far as is known. Beginning on the west it is found at Hoshungabad on the Nerbudda; thence through Seoni to Sambalpur and in the valley of the Mahánadi in Orissa, where it has been procured at Boad and Sonepur. Jerdon records it from the banks of the Wainganga and Indrávati rivers. It is again found in Dacca, and then in the Bhutan and Buxa Doars, extending up to Sadiya. Southwards from Assam it occurs in all suitable localities down to Central Tenasserim, being extremely common in Manipur and many parts of Southern Pegu. It appears to be absent from the Malay peninsula, but it is found again in Java.

*Habits, &c.* Breeds from April to June, or later, making a deep cup-shaped nest of grass-leaves in a tussock of grass and laying four eggs, which are white speckled with blackish and purplish brown; they measure ·9 by ·63.

## Genus **SCHŒNICOLA**, Blyth, 1844.

The genus *Schœnicola* contains one Indian bird which has been till lately remarkable for its extreme rarity and local distribution. We owe it to Mr. Frank Bourdillon and Col. Butler that we are now well acquainted with the species.

*Schœnicola* has two thorough and complete moults a year, changing the colour of its plumage and the length of its tail at each moult. The sexes are alike, and the young birds are tinged with yellow. This genus resembles *Megalurus* in many of its habits, especially in its fondness for grass and reeds, and in its habit of soaring in the air singing.

In *Schœnicola* the bill is rather short, being only half as long as the head; there are two strong rictal bristles, no supplementary hairs, and the feathers of the forehead are short and compact. The wing is fairly developed, the third primary reaching to the tip of the wing, and the first two being of large size. The tail at both seasons is very ample and well graduated. The tarsus is remarkably long, denoting a ground-feeding bird.

### 390. **Schœnicola platyura.** *The Broad-tailed Grass-Warbler.*

Thimalia platyura, *Jerd. Madr. Journ. L. S.* xiii, p. 170 (1844).
Schœnicola platyura (*Jerd.*), *Jerd. B. I.* ii, p. 73; *Hume, S. F.* vii, p. 37; *id. Cat.* no. 442; *Legge, Birds Ceyl.* p. 532; *Brooks, S. F.* ix, p. 209; *Hume, S. F.* ix, pp. 211, 234; *Butler, S. F.* ix, p. 401; *Davison, S. F.* x, p. 383; *Sharpe, Cat. B. M.* vii, p. 110; *Barnes, Birds Bom.* p. 183; *Macgregor, S. F.* x, p. 438; *Oates in Hume's N. & E.* 2nd ed. i, p. 251.

*The Broad-tailed Reed-bird,* Jerd.

*Coloration.* In summer, the lores and a short indistinct supercilium whitish; chin, throat, and middle of abdomen pure white; remainder of the lower plumage rich ochraceous brown; the under tail-coverts dark brown, tipped with dull white; the whole upper plumage, sides of the head, and neck rich brown tinged with rufous, brighter on the edges of the quills and coverts; the back, rump, upper tail-coverts, and tertiaries indistinctly cross-rayed; tail brown, distinctly cross-barred, darker and obsoletely tipped pale.

In winter, the lores and a rather indistinct supercilium, cheeks, and the whole lower plumage soft ochraceous white, more pronounced across the breast and on the flanks; under tail-coverts dark ochraceous, tipped with dull white; sides of the head and neck and the whole upper plumage fulvous-brown, the edges of the quills and coverts brighter; the back, rump, upper tail-coverts, and tertiaries cross-rayed when viewed in a good light; tail brown, distinctly cross-barred darker, and all the feathers tipped with dull white.

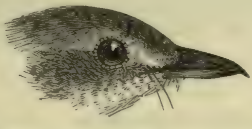

Fig. 123.—Head of *S. platyura.*

Iris olive-brown; legs and feet brown in front, pale whitish flesh-colour behind and on the soles; bill black above, pale horny blue below; gape black. In the female the legs and feet are fleshy brown and paler than in the male; the bill is brown above, fleshy below, and the mouth is not black inside (*Butler*, August and September).

Iris pale clay-brown; bill above plumbeous, below pale horny white; legs, feet, and claws pale brownish (*Bourdillon*, April).

In winter the length is about 7; tail 2·8; wing 2·7; tarsus ·85; bill from gape ·65. In summer plumage the tail is slightly shorter than in winter plumage, and measures about 2·5.

*Distribution.* The western coast of India from Belgaum to Travancore, and Ceylon. This bird is a permanent resident, and inhabits both the hills and the lower levels.

*Habits, &c.* Breeds near Belgaum in September. The nest, which is a mere ball of grass with an entrance on one side, is built in a tussock of grass close to the ground. The eggs, four in number, are white spotted with brownish red, and one egg measured ·73 by ·6.

### Genus **ACANTHOPTILA**, Blyth, 1855.

The genus *Acanthoptila* was instituted by Blyth for a remarkable bird discovered by Hodgson many years previously, and which is still very rare. It is characterized by its large size, spinous plumage, and very ample tail.

Hodgson figures two specimens, to each of which he assigns a different name; but an examination of his types, together with some other specimens, leaves it little doubtful, I think, that both drawings represent the same species, and that the differences shown are due to season. *Acanthoptila*, like most Warblers, has two moults a year, probably only a partial one in the spring, but one which affects the colour of the throat very distinctly. The sexes are probably alike.

This genus has a bill nearly as long as the head and gently curved; the rictal bristles are short, there are no supplementary hairs, and the forehead is flat and smooth as in other Grass-Warblers. The wing is rounded, and the first four quills graduated. The tail is much longer than the wing, broad and well rounded. The tarsus is about one third the length of the wing and very strong.

### 391. **Acanthoptila nepalensis.** *The Spiny Warbler.*

Timalia nipalensis, *Hodgs. As. Res.* xix, p. 182 (1836).
Timalia pellotis, *Hodgs. As. Res.* xix, p. 182 (1836).
Timalia leucotis, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844).
Malacocercus nipalensis (*Hodgs.*), *Blyth, Cat.* p. 140; *Horsf. & M. Cat.* i, p. 222.
Acanthoptila nipalensis (*Hodgs.*), *Jerd. B. I.* ii, p. 57; *Hume, S. F.* vii, p. 459; *id. Cat.* no. 431; *Sharpe, Cat. B. M.* vii, p. 380; *Oates in Hume's N. & E.* 2nd ed. i, p. 252.
Acanthoptila pellotis (*Hodgs.*), *Hume, N. & E.* p. 269.
Malacocercus pellotis (*Hodgs.*), *Hume, Cat.* no. 431 bis.

*The Spiny Babbler*, Jerd.

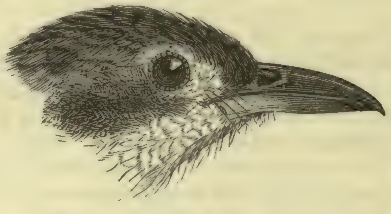

Fig. 124.—Head of *A. nepalensis.*

*Coloration.* In winter, the whole upper plumage, tail, and visible portions of the wings are rich olive-brown, the feathers of the head and back with stiff black shafts; tail distinctly darker cross-rayed; lores and the feathers behind and below the eye whitish; ear-coverts brown, the central portion mixed with white; lower plumage rufescent, each feather with a dark brown shaft-streak, the streaks increasing in size as they recede from the head; under tail-coverts and flanks plain rufescent brown.

In summer, the lores, the feathers round the eye, the ear-coverts, cheeks, chin, and throat become white, the shafts of the throat-feathers glistening; the lower plumage becomes whiter, especially on the abdomen.

Bill dusky horn; legs dull fleshy brown; iris smoky brown (*Hodgson, MS.*).

Length about 10; tail 5; wing 3·5; tarsus 1·2; bill from gape 1·1.

On examining Hodgson's specimens of this bird, also one procured by Captain Pinwill and one by Mandelli, there can be little doubt that the Spiny Babbler has a summer and a winter plumage. Two specimens are in the summer plumage, and one of these is moulting and acquiring some rufous feathers on the throat.

*Distribution.* Appears to be fairly common in Nepal. The Pinwill collection contains a summer-plumaged bird from the N.W. Himalayas (probably Kumaun), and the Hume collection one from Dolaka procured by Mandelli.

*Habits, &c.* Hodgson remarks of this bird that the sexes are alike, that it is solitary, tenants low bushes, flies very ill and unwillingly, and that it feeds entirely on the ground. He adds that it is found by bushy rills, and that it hides itself instantly. It makes a loose, shallow, grass nest in a fork of a tree. One nest is stated to have measured nearly 5 inches in diameter and nearly 2 in height externally. The eggs are verditer-blue, and measure 1·1 by ·65.

On the label of the Pinwill specimen there is a remark that this bird is a fine songster.

## Genus **CHÆTORNIS**, G. R. Gray, 1848.

The genus *Chætornis* was instituted by Gray for the reception of an Indian bird which is characterized by having the rictal bristles, five in number, arranged in a vertical series in front of the eye and by having the lores naked. It is doubtful whether the genus has a spring moult, but if it has, the moult is probably confined to the wings and a few of the body-feathers. The tail is not changed in the spring, and the colour of the bird is not affected; but abrasion of the feathers, to which it is very subject, causes a great variety of changes to be observed in this bird in the course of the year. The sexes are alike, and the young are richly coloured.

This bird, like *Megalurus* (to which it is closely allied), has the habit of rising singing into the air, and, like birds of that genus, affects grass and reeds and feeds a good deal on the ground. It is not a difficult bird to observe.

There are no supplementary hairs in front of the rictal bristles, and the feathers of the forehead are short and smooth. With this bird the series of Reed- and Grass-Warblers with twelve tail-feathers, and characterized by the firm plumage of the forehead, ends. The bird constituting the next genus, usually considered a

Reed-Warbler, is, notwithstanding its habits, more closely allied to *Hypolais* and *Sylvia* than to *Acrocephalus*, *Locustella*, and *Tribura*. It commences the series of Warblers in which the feathers of the forehead are disintegrated, loose, and untidy, and in which there are supplementary hairs in front of the rictal bristles; and all these Warblers are more or less arboreal.

### 302. **Chætornis locustelloides.** *The Bristled Grass-Warbler.*

Dasyornis locustelloides, *Blyth, J. A. S. B.* xi, p. 602 (1842).
Megalurus striatus, *Jerd. Madr. Journ. L. S.* xiii, p. 169 (1844).
Sphenura striata (*Jerd.*), *Blyth, Cat.* p. 139.
Chætornis striatus (*Jerd.*), *Horsf. & M. Cat.* i, p. 330; *Jerd. B. I.* ii, p. 72; *Hume, N. & E.* p. 277; *Butler, S. F.* v, p. 209; *Ball, S. F.* v, p. 416; *Cripps, S. F.* vii, p. 270; *Hume, Cat.* no. 441; *Barnes, Birds Bom.* p. 183.
Chætornis locustelloides (*Blyth*), *Sharpe, Cat. B. M.* vii, p. 130; *Oates in Hume's N. & E.* 2nd ed. i, p. 252.

*The Grass-Warbler*, Jerd.; *Genta-pitta*, Tel.

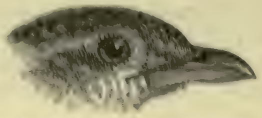

Fig. 125.—Head of *C. locustelloides*.

*Coloration.* The newly-moulted bird in autumn has the lores and a supercilium white; the whole upper plumage fulvous-brown, boldly streaked with black; wings and coverts dark brown, very broadly edged with fulvous; tail fulvous-brown, each feather barred with black, the bars confluent at the shaft and not reaching to the edges of the feather; the tips fulvous-white, preceded by a black patch; sides of the head mottled fulvous and brown; chin, throat, and middle of abdomen white; remainder of the lower plumage pale ochraceous.

After May the plumage becomes very dull, owing to the wearing away of the edges of the feathers, and the lower plumage becomes nearly uniformly white.

Legs and feet brown; iris hazel; bill black, the lower mandible tipped horny-blue (*Butler*, September).

Legs fleshy; iris light chocolate-brown; bill fleshy at base, the rest horny (*Cripps*, March).

From April to September the bill is black, at other times pale as described by Cripps.

Length about 8·5; tail 3·9; wing 3·5; tarsus 1·15; bill from gape ·75. The sexes are of much the same size, contrary to what is usually asserted.

*Distribution.* This species appears to be spread over a considerable portion of the peninsula of India. Jerdon procured it on the Nilgiris and at Nellore, Ball at Sambalpur and Kálahandi. In the

Hume collection there are specimens from Deesa, Saugor, Seoni, Raipur, and Sambalpur. Further north this bird occurs at Etáwah, Jhinjhak (Cawnpore), Dinapur, and in Oudh. I have seen a specimen which is labelled Darjiling. Jerdon states that *C. locustelloides* is common all over Lower Bengal, and Cripps records it from Furreedpore. Godwin-Austen inserts it in his list of Khási-hill birds, but does not state the precise locality where he obtained it. It is a permanent resident in all parts of its range.

*Habits, &c.* Breeds from May to September, constructing a globular nest of grass, with the entrance at the side, in a clump of grass or in a bush or even on the ground. The eggs are white speckled with purplish brown and inky purple, and measure ·8 by ·6.

## Genus **ARUNDINAX**, Blyth, 1845.

The genus *Arundinax* contains only one species, a common winter visitor to the eastern parts of the Empire. It has the general aspect of *Acrocephalus*, but has really no close affinities for that genus, from which it differs in having a large first primary, a more graduated tail, and a rough forehead. Its affinities seem to be more with *Hypolais* and *Sylvia*. Although fond of water and generally found near rivers and marshes, it is not a reed-bird to the same extent as the Reed-Warblers. I have frequently found it among bushes and trees, and Davison remarks that in Tenasserim it is found chiefly in gardens, along the edges of fields where there is cover, on the outskirts of forests, and not unfrequently in grass.

It appears to have two complete moults a year, but the changes of colour at the two seasons are very slight and not worthy of separate description. The sexes are alike.

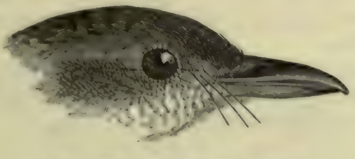

Fig. 126.—Head of *A. aëdon*.

In this genus the bill is very strong and rather wide, and there are three strong rictal bristles somewhat diagonally placed. There are some supplementary hairs in front of these bristles, and the feathers of the forehead are disintegrated, soft, and with the shafts somewhat produced. The third primary reaches to the tip of the wing. The tail is very much graduated, and the feathers narrow.

### 393. **Arundinax aëdon.** *The Thick-billed Warbler.*

Muscicapa aedon, *Pall. Reise*, iii, p. 695 (1776).
Phragamaticola olivacea, *Blyth, Jerd. Madr. Journ. L. S.* xiii, pt. ii, p. 129 (1844).
Arundinax olivaceus (*Blyth*), *Blyth, Cat.* p. 181; *Horsf. & M. Cat.* i, p. 331; *Jerd. B. I.* ii, p. 157.
Arundinax ædon (*Pall.*), *Hume, S. F.* ii, p. 234; *Hume & Dav. S. F.* vi, p. 339; *Hume, Cat.* no. 518; *Oates, B. B.* i, p. 98; *Hume, S. F.* xi, p. 202.
Lusciniola aedon (*Pall.*), *Seebohm, Cat. B. M.* v, p. 121.

*The Thick-billed Reed-Warbler,* Jerd.

*Coloration.* Upper plumage fulvous olive-brown, brightest on the rump; wing-coverts, quills, and tail brown, the first very broadly and the two latter narrowly edged with the colour of the back; lores whitish; feathers round the eye pale fulvous; ear-coverts and sides of the head and neck like the back; no eye-stripe; lower plumage buffish white, lighter on the chin, throat, and abdomen, and suffused with russet-brown on the flanks, vent, and under tail-coverts; axillaries and under wing-coverts buff. In summer the lower parts are not so richly coloured.

The *young* have the russet-brown of the lower parts more pronounced than even the winter adult.

Upper mandible dark horn-colour, lower one flesh-colour; the tips of both and the gape tinged with orange; mouth bright salmon-colour; iris umber-brown; eyelids bright plumbeous; legs and feet plumbeous; claws horn-colour.

Length 7·7; tail 3·5; wing 3·1; tarsus 1·1; bill from gape ·88; the first primary is very long, measuring nearly an inch in length.

*Distribution.* A winter visitor to the eastern portion of the Empire, being found throughout Burma, the hill-ranges of Eastern Bengal, Cachar, Tipperah, Manipur, Assam, the Bhutan Doars, Sikhim, both British and Native, the Nepal Terai, and the greater part of Bengal. To the west it appears to be rare. Jerdon records it from the Carnatic, and I have examined a specimen procured at Bangalore.

In winter it extends down the Malay peninsula and throughout South-eastern Asia. It summers in North China and Siberia. Nothing is known of its nidification.

## Genus **HYPOLAIS,** Brehm, 1828.

The genus *Hypolais* contains four Indian species so very like each other, and so difficult to separate one from the other, that it would, at first sight, seem preferable to unite them under one specific name. The slight differences that exist between them appear, however, to be correlated with geographical distribution, and so it is, on the whole, better to recognize these differences.

*Hypolais* moults twice in the year, but the moults are not accompanied by any visible change of colour in the plumage. The sexes are alike, and the young are less deeply coloured than is usual in birds of this family. They are all migratory, but their migrations are short and probably on the decline, as some few birds remain in their winter-quarters all the year through.

*Hypolais* resembles *Sylvia* very closely, and might perhaps be joined to it, but it has a sensibly larger bill, and on this account it is desirable to keep the two genera distinct.

In *Hypolais* the bill from the gape to the tip is longer than the middle toe and claw; there are three weak rictal bristles, and the supplementary hairs in front of them are obsolete, but still clearly visible with a lens. The first primary is small but not minute, and the third reaches to the tip of the wing. The tail is slightly rounded only. The colour of the plumage is very dull, and there is not a single bright spot or line to relieve it.

*Key to the Species.*

- *a.* Primary-coverts reaching to about the middle of the first primary; upper plumage olive-brown.
    - *a'.* Tail 2·2 or more; bill from gape to tip ·6 or more.
        - *a''.* Distance from tip of secondaries to tip of wing ·4; from tip of first primary to tip of wing 1·1 to 1·25; wing 2·3 to 2·5 .. *H. rama*, p. 391.
        - *b''.* Distance from tip of secondaries to tip of wing ·55 to ·65; from tip of first primary to tip of wing 1·3 to 1·5; wing 2·5 to 2·7 .................................. *H. pallida*, p. 392.
    - *b'.* Tail under 2; bill from gape to tip ·55, seldom more.......................... *H. caligata*, p. 393.
- *b.* Primary-coverts extending over two thirds the length of the first primary; upper plumage sandy brown* ......................... *H. obsoleta*, p. 393.

### 394. **Hypolais rama.** *Sykes's Tree-Warbler.*

Sylvia rama, *Sykes, P. Z. S.* 1832, p. 89.
Phyllopneuste rama (*Sykes*), *Blyth, Cat.* p. 183; *Horsf. & M. Cat.* i, p. 335; *Jerd. B. I.* ii, p. 189; *Butler & Hume, S. F.* iii, p. 486.
Iduna caligata (*Licht.*), *apud Hume, N. & E.* p. 360.
Hippolais rama (*Sykes*), *Brooks, S. F.* iv, p. 275.
Hypolais rama (*Sykes*), *Hume, Cat.* no. 553; *Doig, S. F.* ix, p. 279; *Seebohm, Cat. B. M.* v, p. 84; *Barnes, Birds Bom.* p. 224; *Oates in Hume's N. & E.* 2nd ed. i, p. 254.

*Sykes's Warbler*, Jerd.; *Koktalghu*, Turki.

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* HYPOLAIS LANGUIDA, *Hemp. & Ehr.*, is said to occur in Sind, but I can find no specific instance of its having done so. It differs from all the other Indian species of *Hypolais* in having the primary-coverts and the bastard primary of almost the same length, or, rather, reaching to the same point, and in its larger size, the wing being about 3 in length. It has been obtained in Baluchistan, but in that portion of it under Persian control, and at Chaman in Afghanistan.

*Coloration.* After the autumn moult the upper plumage and the margins of the wing and tail are olive-brown with a fulvous tinge, the outer tail-feathers edged with whitish; lores dusky; a pale whity-buff supercilium from the nostrils to just past the eye; the whole lower plumage very pale buff, the throat and middle of the abdomen nearly white.

Iris brown; legs and feet grey; bill brown above, fleshy below (*Butler*).

Length about 5·5; tail 2·2; wing 2·3 to 2·5; tarsus ·8; bill from gape ·6. The second primary terminates between the seventh and ninth, the first primary is 1·1 to 1·25 short of the tip of the wing and the secondaries ·4 short.

There is no seasonal change of colour in the plumage beyond what is caused by abrasion and wear and tear of the feathers. The colour of the plumage is a very bad guide to identification.

*Distribution.* Throughout the whole peninsula of India down to the Nilgiris in the south, and to the longitude of Dinapore and Lohardugga in the east. I have examined a large series of birds from almost every portion of this area. It is in general a winter visitor, but Doig found a large colony breeding from March to July on the Eastern Nára, Sind. It breeds in Quetta and westwards to Europe; also in Turkestan; and Seebohm states that it breeds in Kashmir. India appears to be its main winter-quarters.

*Habits, &c.* Breeds in Sind, constructing a small cup-shaped nest of sedge and fine grass in the centre of a low bush. The eggs, four in number, are white marked with brown and measure ·61 by ·49.

### 395. **Hypolais pallida.** *The Olivaceous Tree-Warbler.*

Curruca pallida, *Hemp. & Ehr. Symb. Phys., Aves*, fol. bb (1833).
Hypolais pallida (*H. & E.*), *Hume, S. F.* vii, pp. 398, 504; *id. Cat.* no. 553 ter; *id. S. F.* ix, p. 231; *Seebohm, Cat. B. M.* v, p. 82; *Barnes, Birds Bom.* p. 225.

*Coloration.* Resembles *H. rama* in colour, but differs in being larger, in the tip of the secondaries being ·55 to ·65 from the tip of the wing, and the tip of the first primary 1·3 to 1·5 short of the same.

Length nearly 6; tail 2·2; wing 2·5 to 2·7; tarsus ·8; bill from gape ·75; the second primary is between the sixth and eighth.

In *H. pallida* the difference between the length of the wing and that of the tail is considerably greater than in *H. rama*, in which it is frequently not more than ·1.

*Distribution.* Hume received this bird from Sehwan, but subsequently doubted the identification of the specimen, thinking it to be an abnormal *H. rama*. Dresser, however, distinctly states that he has seen Sind specimens of *H. pallida*. It is a bird which is most likely to be found in Sind, and so I admit it to my list. Barnes states that this bird occurs in Sind as a cold-weather visitant, but on what authority I do not know, unless it be that of Murray, who calls it a winter visitor to Sind.

Its summer-quarters extend to Turkestan, South-western Asia, Europe, and North-eastern Africa.

### 396. **Hypolais caligata.** *The Booted Tree-Warbler.*

Sylvia caligata, *Licht., Eversm. Reise Buchara,* p. 128 (1823).
Jerdonia agricolensis, *Hume, Ibis,* 1870, p. 182; *Blanf. S. F.* ii, p. 330.
Hypolais caligata (*Licht.*), *Hume, S. F.* vii, p. 396; *id. Cat.* no. 553 bis; *Seebohm, Cat. B. M.* v, p. 85; *Barnes, Birds Bom.* p. 224.

*Coloration.* Resembles *H. rama*, from which the present species differs only in size, being smaller, and in having a longer second primary, the tip of this primary being between the sixth and seventh. The best character by which to separate this species from *H. rama* is the shorter tail, which never reaches a length of 2.

Lower mandible and edges of upper reddish fleshy; rest of bill dark brown; legs, feet, and claws pale brown; iris dark brown (*Davison*).

Length about 5; tail 1·9; wing 2·4; tarsus ·75; bill from gape ·55.

*Distribution.* A winter visitor to the whole of Northern and Central India. I have traced it southwards to Belgaum, and on the east to Mudhupur on the E.I. Railway. It is found on the west as far as Karáchi and Hydrabad. It is doubtful, I think, whether this bird remains to breed in any portion of the Himalayas, but Seebohm asserts that it does so in Kashmir. Biddulph, however, found it in Gilgit only in August and September, when it was probably migrating southwards. It is known to summer in Turkestan and Southern Siberia.

### 397. **Hypolais obsoleta.** *The Desert Tree-Warbler.*

Salicaria obsoleta, *Severtz. Turkest. Jevotn.* pp. 66, 129 (1873); *id. S. F.* iii, p. 426.
Hypolais obsoleta (*Sev.*), *Seebohm, Cat. B. M.* v, p. 86.

*Coloration.* Resembles *H. rama*, but the whole upper plumage is a pale sandy brown.

Length about 5; tail 2; wing 2·4 to 2·6; tarsus ·75; bill from gape ·65. The second primary terminates between the sixth and seventh; the distance from the tip of the first primary to the tip of the wing is 1·3 to 1·5; the secondaries fall short of the tip of the wing by ·45 to ·6.

*Distribution.* Seebohm possesses a skin which was obtained in Sind, but this I have not been able to examine, owing to its having been sent to Russia. We can, however, have no better authority than Seebohm for the identification of this bird. It is a rare species. It is supposed to summer in the desert portions of Turkestan, and to winter in Sind. It has occurred at Fao in the Persian Gulf.

## Genus **SYLVIA**, Scop., 1769.

The genus *Sylvia* contains six Indian species, three of which are very closely allied to each other and to a European form, and a fourth is merely a race of another bird common in Europe. *Sylvia* and *Hypolais* are almost congeneric; but the former has a smaller bill and brighter colours, and in some of the species the sexes differ in colour to some small extent, while in *Hypolais* the sexes are always alike.

*Sylvia* has two moults a year; but these do not cause any important difference in the colour of the plumage at the two seasons. All the species are migrants, but their migrations are of very limited extent, consisting of a change from the plains to the mountainous parts and back again, and there is reason to think that one or more species may be resident in India. This is almost a certainty in the case of *S. nana*.

The true Warblers frequent trees and bushes, have for the most part a pleasant song, and build cup-shaped nests at no great height above the ground, laying eggs which are usually marked with yellowish brown.

In *Sylvia* the bill from the gape to the tip is shorter than the middle toe and claw; the three rictal bristles are weak, and the supplementary hairs nearly obsolete; the feathers of the forehead are decomposed and rough. The first primary is small, and the second is equal to the sixth or thereabouts. The tarsus is stout and short, and the tail very slightly graduated.

### *Key to the Species.*

*a*. First primary minute, not reaching to tips of primary-coverts ........................ *S. cinerea*, p. 395.
*b*. First primary large, extending considerably beyond tips of primary-coverts.
  *a'*. Crown of head black or brown; wing considerably more than 3.................. *S. jerdoni*, p. 395.
  *b'*. Crown of head fawn-brown, concolorous with back; wing under 3 .............. *S. nana*, p. 396.
  *c'*. Crown of head grey; wing under 3.
    *a''*. Upper plumage greyish brown, slightly darker on crown; wing 2·6 to 2·8; second primary generally between sixth and seventh, sometimes equal to seventh, and rarely between seventh and eighth . *S. althæa*, p. 397.
    *b''*. Upper plumage earth-brown, crown brownish grey; wing 2·45 to 2·65; second primary equal to sixth, rarely between sixth and seventh............ *S. affinis*, p. 397.
    *c''*. Upper plumage sandy brown; crown pale bluish grey; wing 2·3 to 2·45; second primary equal to seventh and sometimes between seventh and eighth . *S. minuscula*, p. 398.

### 398. **Sylvia cinerea.** *The White-throated Warbler.*

Sylvia cinerea, *Bechst. Orn. Taschenb.* i, p. 170 (1802); *Hume, S. F.* iii, p. 488; *Seebohm, Cat. B. M.* v, p. 8.
Sylvia rufa (*Bodd.*), *Hume, Cat.* no. 582 quat.; *Barnes, Birds Bom.* p. 233.

*Coloration.* After the autumn moult the whole upper plumage is russet-brown, the margins of the quills and covetrs more rufous, approaching chestnut on the tertiaries and greater coverts; tail brown, edged with russet, and the outermost feathers whity brown; lores grey; sides of the forehead mixed russet and grey; chin, throat, and middle of abdomen whitish; the remainder of the lower plumage pale buff. In summer both sexes have the upper plumage greyish brown, and the male has the breast suffused with vinous.

Legs and feet yellowish brown; bill dusky above, fleshy at base of lower mandible; iris yellowish brown (*Butler*); bill dark horny, whitish at base below; iris brown (*Hume*).

Length about 6; tail 2·5; wing 2·9; tarsus ·8; bill from gape ·6. Second primary equal to fourth; first primary very minute.

*Distribution.* This is a very rare species in India, and the specimens I have seen have been killed, without exception, in September. It is therefore impossible to say whether this is a winter or a summer visitor, or whether it merely passes through on migration. It has occurred at Gilgit and Astor, in Lower Sind, on Mount Abu, and at Deesa. Hume gives it from Jodhpore and Páli.

It breeds throughout Europe, and eastwards to Persia; and it winters in Africa. It is not unlikely, therefore, to be a summer visitor to India, and to breed there.

### 399. **Sylvia jerdoni.** *The Eastern Orphean Warbler.*

Curruca jerdoni, *Blyth, J. A. S. B.* xvi, p. 439 (1847).
Sylvia jerdoni (*Blyth*), *Blyth, Cat.* p. 187; *Hume, Cat.* no. 581; *Seebohm, Cat. B. M.* v, p. 16; *Barnes, Birds Bom.* p. 232.
Sylvia orphea (*Temm.*), *Jerd. B. I.* ii, p. 208; *Butler & Hume, S. F.* iii, p. 487.

*The Large Black-capped Warbler* *, Jerd.; *Pedda nulla kampa-jitta*, Tel.

*Coloration. Male.* Forehead, crown, nape, lores, and sides of the head black; upper plumage slaty grey; wings brown, edged with slaty grey; tail black, the outermost feathers with the outer web white and the inner with the terminal third white; the next two pairs white at the tip of the inner web; cheeks and lower plumage white, tinged with very pale buff, especially on the sides of the body; under tail-coverts slaty grey, broadly tipped with white.

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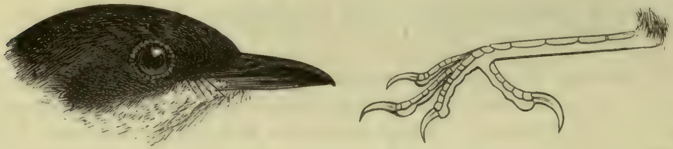
* As this bird is not the Eastern representative of the Blackcap or Black-capped Warbler of Europe, Jerdon's name seems to me inappropriate and misleading.



Figs. 127, 128.—Head and foot of *S. jerdoni.*

*Female.* Crown, forehead, and nape brown, and the ear-coverts blackish; otherwise like the male.

Legs and feet slaty-grey; bill blackish brown, slaty at base of lower mandible; iris pale straw or dirty white (*Butler*).

Length about 7; tail 2·9; wing 3·2; tarsus ·9; bill from gape ·85. The first primary is about ·75 in length, and the second is between the fifth and sixth.

This bird differs from its European representative, *S. orphea*, in having a much larger bill and paler lower plumage.

*Distribution.* A winter visitor to a great portion of India, from September to April. It inhabits the whole peninsula as far as Trichinopoly on the south and Mánbhoom in Chutia Nagpur on the east. It appears to be confined to the plains in winter. It passes through Gilgit in the spring and autumn migrations, and breeds in Turkestan.

### 400. **Sylvia nana.** *The Desert Warbler.*

Curruca nana, *Hempr. & Ehrenb. Symb. Phys., Aves,* fol. cc (1833).
Sylvia delicatula, *Hartl. Ibis,* 1859, p. 340, pl. x, fig. 1; *Hume, S. F.* i, p. 199.
Sylvia nana (*H. & E.*), *Hume, Cat.* no. 583 bis; *Doig, S. F.* ix, p. 280; *Seebohm, Cat. B. M.* v, p. 26; *Barnes, Birds Bom.* p. 234.

*Coloration.* Lores and round the eye white; forehead, crown, nape, back, and scapulars fawn-brown; rump and upper tail-coverts rufous; middle tail-feathers rufous, with black shafts; the next two pairs dark brown, margined with rufous; the next pair brown, margined with pale rufous and tipped white; the next white on the outer web, dark brown on the inner with a white tip; the outermost pair pure white; wings brown, margined with rufescent; the whole lower plumage very pale buffish white.

Iris pale yellow; bill dusky brown above, whitish flesh below; legs and feet straw-yellow (*Butler*).

Length about 5; tail 2; wing 2·3; tarsus ·75. The first primary is ·4 long; the second is equal to the sixth or seventh.

*Distribution.* The Desert portions of Sind, Baháwalpur, Rajputana, and the southern parts of the Panjab. To the east this Warbler extends as far as Sirsa, Hissar, and Jodhpore. To the north I have not been able to trace it above Baháwalpur. It is probably a resident species in all this tract, for Doig found the young just able to fly in November near the Runn of Cutch.

401. **Sylvia althæa.** *Hume's Lesser White-throated Warbler.*

Sylvia affinis, *Blyth apud Jerd. B. I.* ii, p. 209.
Sylvia althæa, *Hume, S. F.* vii, p. 60; *id. Cat.* no. 582 ter; *Scully, Ibis,* 1881, p. 450; *Seebohm, Cat. B. M.* v, p. 20; *Barnes, Birds Bom.* p. 233.

*The Allied Grey Warbler,* Jerd.

*Coloration.* Upper plumage greyish brown, slightly darker on the crown and tinged with brown on the back; tail dark brown, the feathers narrowly margined and increasingly tipped with white from the middle to the outside, the outermost feathers being almost entirely white, only the basal portion of the inner web and the shaft being brown; wings dark brown, edged paler, the tertiaries nearly the colour of the back; lores, round the eye, and the ear-coverts dark brown; the whole lower plumage pale cineraceous. In summer, judging from a May specimen, the lower plumage is duller.

Iris dark brown; legs and feet plumbeous black; bill brownish black, slaty-blue at base of lower mandible (*Butler*).

Length about 6; tail 2·5; wing 2·6 to 2·8; tarsus ·85; bill from gape ·6. The first primary is ·6 to ·7 long; second primary generally between sixth and seventh, rarely longer than seventh.

*Distribution.* A rare winter visitor to the plains of India. It has been obtained at Baháwalpur, Deesa, Jhansi, Ahmednagar, and Belgaum, from all of which places I have examined specimens. It also occurs at Byan Kheyl, in Afghanistan. It breeds in Kashmir at an elevation of 9000 feet.

Legge is of opinion that the Ceylon Whitethroat may be this species. I have had no opportunity of examining a bird from that island.

It is no easy matter to identify Jerdon's two species of Whitethroat. His *S. affinis*, Bl., judging from its rarity and its larger size, is, in my opinion, rightly identified by Seebohm with *S. althæa.* Hume, however, identifies it with the true *S. affinis.* On the other hand, he assigns Jerdon's *S. curruca*, which he (Jerdon) states is common all over India, to the true *S. curruca*, a bird which is not known to occur in India at all.

If the views of Seebohm and myself are correct, the range of *S. althæa* extends to the Carnatic and Ceylon, from which places Jerdon records it.

402. **Sylvia affinis.** *The Indian Lesser White-throated Warbler.*

Curruca affinis, *Blyth, J. A. S. B.* xiv, p. 564 note (1845); *Brooks, S. F.* iii, p. 272.
Sylvia affinis (*Blyth*), *Blyth, Cat.* p. 187; *Hume, S. F.* i, p. 197, ii,

p. 332; *Butler, S. F.* iii, p. 487; *Hume, S. F.* vii, pp. 59, 60; *id. Cat.* no. 582; *Legge, Birds Ceyl.* p. 538; *Seebohm, Cat. B. M.* v, p. 19; *Barnes, Birds Bom.* p. 232; *Oates in Hume's N. & E.* 2nd ed. i. p. 257.

Sylvia curruca (*Gm.*), *apud Horsf. & M. Cat.* i, p. 344; *Jerd. B. I.* ii, p. 209.

Sterparola curruca (*Lath.*), *Hume, N. & E.* p. 373.

*The Lesser White-throat*, Jerd.; *Chinna nalla Kumpa jitta*, Tel.

*Coloration.* Upper plumage earth-brown; forehead, crown, and nape brownish grey; otherwise as in *S. althæa.*

Iris yellowish brown; legs and feet plumbeous; bill dusky, slaty-horn at base of lower mandible (*Butler*).

Length about 6; tail 2·2; wing 2·45 to 2·65; tarsus ·75; bill from gape ·55. First primary about ·55; the second primary is about equal to the sixth.

The European ally of this species differs persistently in having the second primary much shorter than the sixth. It has not been found in India.

*Distribution.* A winter visitor to nearly the whole of the plains of India. Judging from the specimens I have examined its range extends to the east as far as Mudhupur on the E.I. Railway, and to the south as far as Coimbatore. I have not seen Ceylon specimens, but it is said to occur in that island. Some birds spend the summer and breed in Kashmir, but the majority apparently pass on to Siberia.

*Habits, &c.* Brooks found this bird breeding in Kashmir at from 5500 to 6500 feet, amongst small bushes in May by the side of rivers. The nest was cup-shaped and made of grasses, roots, and fine fibres, and lined with horsehair. The eggs, four or five in number, are white with a greenish tinge, marked with yellowish brown, and measure ·66 by ·5.

### 403. **Sylvia minuscula.** *The Small White-throated Warbler.*

Sylvia minula, *Hume, S. F.* i, p. 198 (1873), vii, p. 58.

Sylvia minuscula, *Hume, Cat.* no. 582 bis; *id. S. F.* viii, pp. 388, 498; *Seebohm, Cat. B. M.* v, p. 20, pl. i; *Barnes, Birds Bom.* p. 232.

*Coloration.* Resembles *S. althæa* and *S. affinis*, but the upper plumage is sandy brown, contrasting with the pale bluish grey of the forehead, crown, and nape.

Legs and feet horny greenish grey; bill horny, paler at the base of the lower mandible; iris very pale yellow (*Hume*).

Length about 5·3; tail 2·1; wing 2·3 to 2·45; tarsus ·75; bill from gape ·5. The first primary is ·5 long; the second primary is equal to the seventh, or between the seventh and eighth.

*Distribution.* Throughout Sind, Baháwalpur, and Rajputana as far east as Jodhpore as a winter visitor. This species is not unlikely to be a resident throughout the year in some parts of its winter range, but it is not yet known to be so. It is said to summer in Afghanistan.

## Genus HERBIVOCULA, Swinhoe, 1871.

The genus *Herbivocula* contains one species which, on account of its thick bill, I consider desirable to separate from the Willow-Warblers. Seebohm places it in his comprehensive genus *Lusciniola*, which embraces five of my genera wholly or in part.

*Herbivocula* is migratory, visiting the southern half of Burma in the winter, and being somewhat rare. It has two moults, but the only difference in plumage at the two seasons is that it is less richly coloured in summer. The young are very yellow. The sexes are alike.

I found this Warbler, on the two occasions I met with it, in bushes. It feeds a good deal on the ground, its strong tarsus being suited to this mode of life. It has considerable affinities for *Arundinax* in structure and colour, but the tail is nearly square.

In this genus the bill is very stout and deep for a Warbler, and about one third the length of the head. The three rictal bristles are very strong, and so are the supplementary hairs, which, however, do not extend up to the culmen nor cover the nostrils as in *Phyllopneuste*. The first primary is very large, and the second falls short of the tip of the wing by a considerable distance, being equal to the eighth.

### 404. **Herbivocula schwarzi.** *Radde's Bush-Warbler.*

Sylvia (Phyllopneuste) schwarzi, *Radde, Reis. Sibir., Vög.* p. 260, t. ix, f. *a, b, c* (1863).
Phylloscopus brooksi, *Hume, S. F.* ii, p. 505 (1874), v, p. 134.
Neornis flavolivacea, *Hodgs. apud Hume, S. F.* iii, p. 139; *Oates, S. F.* x, p. 221.
Phylloscopus schwarzi (*Radde*), *Brooks, S. F.* iv, p. 277; *Hume & Dav. S. F.* vi, p. 353; *Hume, Cat.* no. 556 ter; *Bingham, S. F.* ix, p. 186.
Lusciniola schwarzi (*Radde*), *Seebohm, Cat. B. M.* v, p. 128.
Herbivocula schwarzi (*Radde*), *Oates, B. B.* i, p. 91.

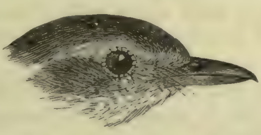


Fig. 129.—Head of *H. schwarzi.*

*Coloration.* Upper plumage olive-brown tinged with tawny, especially on the rump; wings and tail brown, edged on the outer webs with the colour of the back; supercilium very distinct and reaching to the nape, buff; lores and feathers behind the eye dark brown; ear-coverts buff and brown; lower plumage rich tawny buff, paling on the throat and abdomen; axillaries and under wing-coverts buff. In summer the lower parts are nearly white, merely tinged with yellow or buff, more especially so on the vent and under tail-coverts.

Bill horn-colour, the base fleshy white and the gape yellow; iris brown; legs and feet fleshy yellow, claws fleshy brown.

Length about 5·6; tail 2·25; wing 2·45; tarsus ·9; bill from gape ·65. The second primary is equal to the eighth, or intermediate between the seventh and eighth; the first primary is very long, measuring ·85 in length.

*Distribution.* Pegu and the northern and central portions of Tenasserim as a winter visitor. This bird also winters in South China, and it summers in S.E. Siberia.

## Genus **PHYLLOSCOPUS**, Boie, 1826.

The genus *Phylloscopus* contains fifteen Indian species, which are for the most part winter visitors to the plains, retiring for the summer either to the Himalayas or further into Central and Northern Asia. They are all birds of very small size and delicate structure. They closely resemble the birds of the next genus, from which, however, it is desirable to keep them separate on grounds of convenience and structure. In this genus the bill is of much the same shape as in *Acanthopneuste*, but narrower and much smaller compared with the size of the bird. This would be but an indifferent character were it not accompanied by another which renders the separation of the genera quite easy if good specimens are examined. This is that in *Phylloscopus* the supplementary hairs stop short at the lower edge of the nostrils and do not overhang them, whereas in *Acanthopneuste* these hairs grow quite up to the culmen and over the nostrils, making this latter genus quite Muscicapine and a connecting one between *Phylloscopus* and *Cryptolopha*.

The Willow-Warblers frequent trees and bushes, among the leaves of which they search for insects, frequently launching out after the winged ones in the manner of a Flycatcher. They are not aquatic, nor do they, as a rule, frequent grass and reeds. The males probably of all have a pretty song in the breeding-season. They make rather large soft nests either on the ground or on the branches of trees, and the eggs are either pure white or else white spotted with red.

In *Phylloscopus* the supplementary hairs in front of the rictal bristles vary in strength, in some species being weak and in others stronger; but the rictal bristles themselves are always fairly strong. The first primary is small but not minute, and the length of the second varies in each species, generally furnishing a useful character for identification. The tail is either square or slightly forked.

The various species of *Phylloscopus* resemble each other so closely as to render their identification no easy matter without actual comparison with named specimens. The annexed key will, it is hoped, enable all the species to be identified if the plumage is fresh. If the plumage be worn it will, in most cases, be impossible for any one but a practised ornithologist to name the species. If colour fail the next best guide will be dimensions and the proportions of the primaries, but these are by no means constant.

In *Phylloscopus* there are two moults a year, the sexes are alike, and the young are more brightly coloured than the adults.

*Key to the Species*[*].

| | |
|---|---|
| *a*. Upper plumage uniformly of one colour. | |
| *a'*. Under wing-coverts and axillaries yellow. | |
| *a''*. Lower plumage deep yellow | *P. affinis*, p. 401. |
| *b''*. Lower plumage pale dull yellow | *P. tytleri*, p. 402. |
| *c''*. Lower plumage buff | *P. tristis*, p. 403. |
| *b'*. Under wing-coverts and axillaries brown; lower plumage buffish yellow | *P. indicus*, p. 404. |
| *c'*. Under wing-coverts, axillaries, and lower plumage dusky oil-green | *P. fuliginiventris*, p. 404. |
| *d'*. Under wing-coverts, axillaries, and lower plumage rich buff | *P. fuscatus*, p. 405. |
| *e'*. Under wing-coverts and axillaries yellowish white or white; lower plumage very pale buff. | |
| *d''*. Smaller; wing 1·85 to 2·1 | *P. neglectus*, p. 406. |
| *e''*. Larger; wing 2·05 to 2·4 | *P. sindianus*, p. 406. |
| *b*. Crown darker than back, and variegated with coronal bands. | |
| *f'*. Lower portion of rump bright yellow. | |
| *f''*. Inner webs of outer tail-feathers white. | |
| *a'''*. Throat and upper breast grey | *P. maculipennis*, p. 406. |
| *b'''*. Throat and upper breast yellow | *P. pulcher*, p. 407. |
| *g''*. Inner webs of outer tail-feathers not white | *P. proregulus*, p. 408. |
| *g'*. Lower portion of rump not yellow, but coloured like upper portion. | |
| *h''*. Lower plumage rather deep yellow tinged with ochraceous | *P. subviridis*, p. 409. |
| *i''*. Lower plumage very pale yellow or yellowish white. | |
| *c'''*. Supercilium greenish yellow; both wing-bars distinct | *P. superciliosus*, p. 409. |
| *d'''*. Supercilium pale buff or brown, very distinct; upper wing-bar less distinct than lower | *P. humii*, p. 410. |
| *e'''*. Supercilium brownish buff, distinct; upper wing-bar indistinct | *P. mandellii*, p. 411. |

## 405. **Phylloscopus affinis.** *Tickell's Willow-Warbler.*

Motacilla affinis, *Tick. J. A. S. B.* ii, p. 576 (1833).

Phylloscopus affinis (*Tick.*), *Blyth, Cat.* p. 185; *Jerd. B. I.* ii, p. 194; *Blanf. J. A. S. B.* xli, pt. ii, p. 54; *Brooks, J. A. S. B.* xli, pt. ii, p. 81; *Anders. Yunnan Exped., Aves,* p. 625; *Hume, Cat.* no. 561;

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[*] *P. trochilus*, L. (Jerd. B. I. ii, p. 192), is omitted from this work as its occurrence in India is more than doubtful.

*Scully, S. F.* viii, p. 306; *Davison, S. F.* x, p. 394; *Seebohm, Birds B. M.* v. p. 65; *Barnes, Birds Bom.* p. 229; *Hume, S. F.* xi. p. 219.

*Tickell's Tree-Warbler*, Jerd.

*Coloration.* Upper plumage dull olive-brown; wings and tail dark brown, narrowly edged with bright olive-brown; lores and behind the eye dark brown; a deep yellow supercilium from the nostrils to the nape; the whole lower plumage deep yellow, suffused with olivaceous on the sides of the neck, breast, and body; under wing-coverts and axillaries pale yellow.

Legs and feet greenish brown; claws darker; lower mandible pale yellow, upper dark brown; iris brown (*Cockburn*).

Length about 4·5; tail 1·9; wing 2·2 to 2·5; tarsus ·8; bill from gape ·5; the second primary is equal to the ninth or tenth.

*Distribution.* Breeds at high elevations along the Himalayas from Kashmir to Sikhim, and no doubt also in Bhutan and further east.

This Warbler winters in the plains of India, extending down to the Palni hills. It seems, however, to be unknown in the Punjab, Rajputana, the North-West Provinces, and the greater part of Central India. Its western limit in the peninsula, judging from the specimens I have been able to examine, is a line drawn from Khandála to Raipur, and from Raipur to Benares. The birds which summer in the N.W. Himalayas apparently migrate in a south-easterly direction along the hills, and evidently do not enter the plains till they reach Bengal. To the east this bird has been found up the Assam valley as far as Dibrugarh, in the Khási hills, and in Manipur, and Anderson records it from near Bhamo.

### 406. **Phylloscopus tytleri.** *Tytler's Willow-Warbler.*

Phylloscopus tytleri, *Brooks, Ibis,* 1872, p. 23; *id. J. A. S. B.* xli, pt. ii, p. 79 (1872); *Hume, N. & E.* p. 362; *id. S. F.* iii, pp. 243 note, 279; *id. Cat.* no. 560 bis; *Davison, S. F.* x, p. 394; *Seebohm, Cat. B. M.* v, p. 66; *Oates in Hume's N. & E.* 2nd ed. i, p. 258.

*Coloration.* Upper plumage and the margins of the wings and tail green; lores and a band behind the eye blackish; a supercilium from the nostrils to the nape pale yellow; lower plumage dull yellow tinged with grey; under wing-coverts and axillaries pure sulphur-yellow.

Upper mandible dark brown, lower paler brown, yellowish along the edges; iris dark brown; legs and feet dark brownish green; claws darker; soles yellowish green (*Davison*).

Length about 5; tail 1·8; wing 2·4; tarsus ·7; bill from gape ·55; the second primary is between the seventh and eighth, or equal to the eighth, sometimes slightly exceeding it.

*Distribution.* Summers in the higher elevations of the Himalayas from Kashmir to Kumaun. Winters in the lower portions of the same mountains, and also descends into the peninsula. Specimens have been obtained at Etáwah, Khandála, Sáwant Wári, and Ootacamund.

*Habits, &c.* The nest of this species was found in Kashmir in June by the late Capt. Cock. It was built at the end of a pine bough, about 40 feet from the ground, was constructed of grass-fibres and lichens, and lined with hair and feathers. It was a solid deep cup, and contained four white eggs, which measured about ·58 by ·48.

### 407. **Phylloscopus tristis.** *The Brown Willow-Warbler.*

Phylloscopus tristis, *Blyth, J. A. S. B.* xii, p. 966 (1843); *id. Cat.* p. 185; *Horsf. & M. Cat.* i, p. 336; *Jerd. B. I.* ii, p. 190; *Hume & Henders. Lahore to Yark.* p. 219; *Stoliczka, J. A. S. B.* xli, pt. ii, p. 242; *Scully, S. F.* iv, p. 148; *Hume, Cat.* no. 554; *Brooks, S. F.* viii, p. 476; *Scully, Ibis,* 1881, p. 448; *Hume, S. F.* x, p. 118 note; *Seebohm, Cat. B. M.* v, p. 63; *Barnes, Birds Bom.* p. 227.

*The Brown Tree-Warbler,* Jerd.

*Coloration.* Upper plumage brown, with a tinge of green; wings and tail dark brown, edged with olive-yellow; lores and behind the eye blackish; a narrow but distinct supercilium from the nostrils to the end of the ear-coverts buff; sides of the head and the whole lower plumage buff, paler on the chin, throat, and abdomen; under wing-coverts and axillaries bright sulphur-yellow.

Iris dark brown; legs and feet brownish black, soles pale; bill dusky brown (*Butler*).

Length about 5; tail 1·8 to 2·1; wing 2·2 to 2·5; tarsus ·8; bill from gape ·5; the first primary ·6; the second primary is equal to the seventh, or sometimes rather shorter.

This species differs from the European Chiffchaff in not being yellow beneath, except on the axillaries and under tail-coverts. In faded plumage it may be confounded with *P. sindianus*; but Hume points out (*l. c.*) that these two birds may at all times be separated by the shape of the first primary. I have been able to examine only one specimen of *P. sindianus*, but I could not detect in its first primary any difference of shape from that of *P. tristis.* It is seldom, however, that *P. tristis* is so very faded as not to exhibit some yellow on its axillaries and under wing-coverts, and this character will suffice to separate it from *P. sindianus*, as a rule.

*Distribution.* Summers in the higher portions of the Himalayas in Kashmir. In winter this species is found over the whole of India from Sind to Dacca, and south to about the latitude of Bombay. Some birds remain in the Himalayas, at lower levels, throughout the winter. The nest has not yet been found within our limits, but has been obtained in Siberia.

### 408. **Phylloscopus indicus.** *The Olivaceous Willow-Warbler.*

Sylvia indica, *Jerd. Madras Journ. L. S.* xi, p. 6 (1840).
Phyllopneuste indicus (*Jerd.*), *Blyth, Cat.* p. 183.
Phylloscopus indicus (*Jerd.*), *Jerd. B. I.* ii, p. 194; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 181; *Butler, S. F.* iii, p. 486; *Hume, Cat.* no. 562; *id. S. F.* xi, p. 220; *Barnes, Birds Bom.* p. 229.
Lusciniola indica (*Jerd.*), *Seebohm, Cat. B. M.* v, p. 126.

*The Olivaceous Tree-Warbler*, Jerd.

*Coloration.* Upper plumage earthy brown, with a tinge of yellowish on the rump; wings and tail brown, very slightly margined paler, the outer tail-feathers narrowly tipped with white; a distinct deep yellow supercilium from the nostrils to the nape, shading off into buff; sides of the head brown mingled with buff; lower plumage buffish yellow, slightly dusky on the breast and sides of the body; axillaries and under wing-coverts brown.

Legs, feet, and bill greenish yellow, the bill blackish on the culmen; iris brown (*Hume Coll.*).

Length rather more than 5; tail 2·1; wing 2·5; tarsus ·75; bill from gape ·55; first primary ·6 to ·7; the second is about equal to tenth or somewhat longer.

*Distribution.* A winter visitor to the plains and lower ranges of the Himalayas, being found as far south as Jálna, in Hyderabad, and Chánda. In the north-west it seems to be rare. I have seen a specimen from Murree, but from nowhere else in the Punjab, nor from Sind, nor from the northern parts of Rajputana, above Jodhpore. To the east *P. indicus* is fairly common in all parts of Bengal, and has been observed in Assam at Dollah, in the Dibrugarh district, and at the foot of the Gáro hills.

In summer this bird retires to the higher ranges of the Himalayas, and it breeds in Kashmir, although its nest does not appear to have been found as yet.

*Habits, &c.* Blanford observes that this Warbler differs somewhat in habits from allied species, and is often seen running about vertical stems of trees, to which it clings like a Nuthatch.

### 409. **Phylloscopus fuliginiventris.** *The Smoky Willow-Warbler.*

Horornis fuliginiventer, *Hodgs. P. Z. S.* 1845, p. 31; *Horsf. & M. Cat.* i, p. 335; *Jerd. B. I.* ii, p. 162; *Blyth, Ibis*, 1867, p. 21.
Phylloscopus fuliginiventer (*Hodgs.*), *Blanf. J. A. S. B.* xli, pt. ii, p. 54; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 18; *Hume, Cat.* no. 525.
Lusciniola fuliginiventris (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 129.

*The Smoky Hill-Warbler*, Jerd.

*Coloration.* Upper plumage very dark olive-brown; wings and tail dark brown, margined with olive-brown; a narrow supercilium and the whole lower plumage dusky oil-green; sides of the head dusky and buff mingled. Godwin-Austen speaks of a dull but well-marked ring round the eye; this is not apparent in the skins I have seen.

In the dry skin the upper mandible is black, the lower brown, with the base flesh-coloured; legs brown, Godwin-Austen states that the iris is dull brown and the legs ochraceous green.

Length nearly 4·5; tail 1·75; wing 2·2; tarsus ·8; bill from gape ·55; the first primary ·8; the second equal to the tenth.

*Distribution.* This species was discovered by Hodgson in Nepal. Mandelli procured several specimens in Sikhim from February to June, and Blanford met with it in Sikhim at 14,000 feet elevation. It occurs in the Buxa Doars, and Godwin-Austen obtained it at Sadiya, in Assam. It is evidently a resident species.

### 410. **Phylloscopus fuscatus.** *The Dusky Willow-Warbler.*

Phyllopneuste fuscata, *Blyth, J. A. S. B.* xi, p. 113 (1842).
Horornis fulviventris, *Hodgs. P. Z. S.* 1845, p. 31; *Jerd. B. I.* ii, p. 162; *Hume, N. & E.* p. 329; *id. Cat.* no. 523; *Brooks, S. F.* viii, p. 379.
Phylloscopus brunneus, *Blyth, J. A. S. B.* xiv, p. 591 (1845); *id. Cat.* p. 185; *Horsf. & M. Cat.* i, p. 338.
Phylloscopus fuscatus (*Blyth*), *Blyth, Cat.* p. 185; *Jerd. B. I.* ii, p. 191; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 271; *Anders. Yunnan Exped., Aves*, p. 623; *Hume, Cat.* no. 555; *id. S. F.* xi, p. 217; *Oates in Hume's N. & E.* 2nd ed. i, p. 259.
Lusciniola fuscata (*Blyth*), *Seebohm, Cat. B. M.* v, p. 127.
Herbivocula fuscata (*Blyth*), *Oates, B. B.* i, p. 92.

*The Dusky Tree-Warbler*, Jerd.

*Coloration.* Upper plumage brown; tail and wings brown, edged exteriorly with olive-brown; lores and feathers behind the eye dark brown; a distinct supercilium reaching to the nape buff; cheeks and ear-coverts mingled brown and buff; chin, throat, and abdomen buffy white; breast, flanks, axillaries, vent, and under tail-coverts rich buff. In summer the buff becomes less intense. Before the two annual moults the plumage gets much abraded, and some birds become a uniform dull brown.

Iris brown; upper mandible dusky brown, the lower one dusky yellow, brownish at the tip; mouth yellow; legs and feet dusky flesh-colour; claws yellowish horn-colour.

Length 5·3; tail 2·3; wing 2·4; tarsus ·9; bill from gape ·52. The second primary is intermediate in length between the ninth and tenth; the first primary is large, being about ·8 inch in length.

*Distribution.* Winters in Bengal and the North-West Provinces east of the longitude of Etáwah; extends up to the head of the Assam valley, and thence southwards down to Tenasserim, where it has been observed as far south as Tavoy. It has been found in Nepal, probably in summer, and in Sikhim certainly at that season, if we identify with this species the bird of which Jerdon found the nest at Darjiling in July. Hodgson's *Horornis fulviventris* is undoubtedly this species, as proved by his types (no. 878) in the British Museum; and Jerdon identified his Darjiling specimen with *H. fulviventris.*

In winter this bird is found in Southern China, and at the spring migration the majority of the birds repair to Northern and Central Asia, some few apparently stopping in the Himalayas to breed.

*Habits, &c.* Jerdon describes the nest of this bird as being cup-shaped, composed of grass with a few fibres and built on a bank, and the eggs as pinky white, with a few reddish spots.

### 411. **Phylloscopus neglectus.** *The Plain Willow-Warbler.*

Phylloscopus neglectus, *Hume, Ibis,* 1870, p. 143; *id. Cat.* no. 554 bis; *Brooks, S. F.* viii, p. 480; *Barnes, Birds Bom.* p. 227.
Phyllopseuste neglectus (*Hume*), *Hume, S. F.* i, p. 195.
Lusciniola neglecta (*Hume*), *Seebohm, Cat. B. M.* v, p. 131.

*Coloration.* Upper plumage earthy brown; wings and tail brown, narrowly margined paler; a narrow eyebrow pale buff; lores and behind the eye dark brown; ear-coverts pale buff; the whole lower plumage very pale buff; axillaries and under wing-coverts yellowish white to white.

Eye dark; bill, legs, and feet very dark brown (*Brooks*).

Length about 4; tail 1·5 to 1·65; wing 1·85 to 2·1; tarsus ·7 to ·75; bill from gape ·4; first primary ·6; second primary equal to the eighth or ninth.

*Distribution.* Throughout Upper Sind, along the banks of the Indus. Hume states that in the cold weather this species is common in the Punjab and in the Doab at least as low down as Agra. It is not improbably a resident species in Sind.

### 412. **Phylloscopus sindianus.** *The Sind Willow-Warbler.*

Phylloscopus sindianus, *Brooks, S. F.* viii, p. 476; *Hume, S. F.* ix, p. 99, x, p. 118; *Barnes, Birds Bom.* p. 229.

*Coloration.* Resembles *P. neglectus* so closely as to require no separate description, and only differs in being larger.

Bill dark brown, yellowish towards the base of the lower mandible; legs and feet dark brown; iris dark brown (*Brooks*).

Length about 4·5; tail 1·75 to 2·05; wing 2·05 to 2·4; tarsus ·7 to ·8; bill from gape ·5; the first primary ·6; the second is equal to the ninth.

*Distribution.* Sukkur and Sehwan in Sind, and probably throughout that province. It is doubtless a resident species.

### 413. **Phylloscopus maculipennis***. *The Grey-faced Willow-Warbler.*

Abrornis maculipennis, *Blyth, Ibis,* 1867, p. 27; *Hume, S. F.* vii, p. 399.

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* However indulgent ornithologists may wish to be to Hodgson, it is, in the case of this bird, most undesirable to attach the name *chloronotus* to it. Seebohm has fully stated the case, and so has Hume; and after a personal investigation into the matter I agree with the former and also, I may add, with Brooks in their views of the question.

Reguloides sp. ?, *Blanf. J. A. S. B.* xli, pt. ii, pp. 162, 163.
Abrornis chloronotus, *Hodgs., Hume, S. F.* i, p. 494 (1873); *id. N. & E.* p. 372; *id. S. F.* iv, p. 505.
Reguloides chloronotus (*Hodgs.*), *Hume, Cat.* no. 566 ter.
Reguloides maculipennis (*Blyth*), *Brooks, J. A. S. B.* xliii, pt. ii, p. 247; *id. S. F.* viii, pp. 392, 482.
Phylloscopus maculipennis (*Blyth*), *Seebohm, Cat. B. M.* v, p. 70.

*Coloration.* Forehead, crown, nape, and hind neck dark olive-brown, an ill-defined but rather broad coronal band pale buff; upper plumage yellowish green; lower part of the rump bright sulphur-yellow; wings dark brown, edged with yellowish green, the greater wing-coverts broadly edged with bright yellow, the median tipped more narrowly and less distinctly; the later quills tipped with yellowish white; the three outer pairs of tail-feathers white, except on the terminal half of the outer webs, which is brown; the three middle pairs brown, edged with yellowish green; lores and behind the eye dark brown; a distinct supercilium to the nape pale buff; chin, throat, and upper breast grey; remainder of the lower plumage yellow.

Bill black; legs dark fleshy brown.

Length nearly 4; tail 1·4; wing 1·9; tarsus ·65; bill from gape ·4; first primary ·5; the second is about equal to the ninth or tenth.

*Distribution.* The Himalayas, from the Sutlej river to Bhutan. This appears to be a resident species, merely moving vertically according to season.

### 414. **Phylloscopus pulcher.** *The Orange-barred Willow-Warbler.*

Abrornis erochroa, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844, descr. nulla); *Gray, Cat. Mamm. etc. Nepal,* pp. 66, 152 (1846); *Horsf. & M. Cat.* i, p. 340.
Abrornis pulchrala, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844, descr. nulla).
Phylloscopus pulcher (*Hodgs.*), *Blyth, J. A. S. B.* xiv, p. 592 (1845).
Abrornis pulchra (*Hodgs.*), *Gray, Cat. Mamm. etc. Nepal,* pp. 66, 152 (1846); *Blyth, Cat.* p. 183.
Reguloides erochroa (*Hodgs.*), *Jerd. B. I.* ii, p. 199; *Hume & Dav. S. F.* vi, p. 358; *Hume, Cat.* no. 568; *Scully, S. F.* viii, p. 309; *Brooks, S. F.* viii, pp. 392, 482; *Hume, S. F.* xi, p. 223.
Phylloscopus pulcher (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 73; *Oates, B. B.* i, p. 90.

*The Bar-winged Warbler,* Jerd.

*Coloration.* Head very dark olive-brown; coronal streak merely indicated, being extremely indistinct; upper plumage olive-green, the feathers of the rump very broadly tipped with yellowish green, forming a band above the coverts of the tail; wings and wing-coverts dark brown edged with green, the median and greater coverts broadly tipped with orange; tail with the three middle pairs of feathers brown, edged on the outer webs with yellowish green, the three outer pairs white on the inner webs and on the basal halves of the outer webs, the remainder of the outer webs being brown; supercilium buffish green; sides of the head mingled brown and green; lower plumage greenish yellow.

Bill black; base of lower mandible and gape yellow; irides dark brown; feet dusky greenish, the soles greenish yellow; claws dusky (*Scully*).

Length 4·2; tail 1·75; wing 2·4; tarsus ·8; bill from gape ·5; the second primary is about equal to the tenth; the first primary measures about ·6 inch in length.

*Distribution.* The Himalayas, from Chamba to Bhutan. This species has also been found in the Khási and Nága hills, in Manipur, Karennee, and on Muleyit mountain in Tenasserim. It has not been observed in the Peninsula of India. It is probably a resident where it is found. It has been procured up to 13,000 ft. elevation in Sikhim.

### 415. **Phylloscopus proregulus.** *Pallas's Willow-Warbler.*

Motacilla proregulus, *Pall. Zoogr. Rosso-Asiat.* i, p. 499 (1811).
Abrornis chloronopus, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844).
Reguloides chloronotus (*Hodgs.*), *Blyth, Cat.* p. 184; *Horsf. & M. Cat.* i, p. 343; *Jerd. B. I.* ii, p. 197.
Reguloides proregulus (*Pall.*), *Hume, N. & E.* p. 368; *id. & Henders. Lahore to Yarkand*, p. 220; *Hume & Dav. S. F.* vi, p. 358; *Hume, Cat.* no. 566; *Scully, S. F.* viii, p. 309; *Brooks, S. F.* viii, p. 392; *Hume, S. F.* xi, p. 222.
Phylloscopus proregulus (*Pall.*), *Seebohm, Cat. B. M.* v, p. 71; *Oates, B. B.* i, p. 89; *id. in Hume's N. & E.* 2nd ed. i, p. 260.

*The Yellow-rumped Warbler*, Jerd.

*Coloration.* A broad well-defined coronal streak and a supercilium extending to the nape pale yellow; the head dark olive-brown; upper plumage olive-brown, lighter than the head; rump bright yellow; wings and wing-coverts brown, the outer webs all margined with greenish yellow, the median and greater coverts broadly tipped with pale yellow, forming two wing-bars; tail olive-brown, edged with greenish yellow; sides of the head mingled brown and yellow; lower plumage white, suffused with grey and yellow; axillaries and under wing-coverts yellow. Before the seasonal moults the plumage becomes much faded.

Upper mandible black; the lower mandible dusky, yellowish at the base; irides dark brown; gape orange; feet dingy greenish brown; claws dusky; soles yellowish green (*Scully*).

Length 3·5; tail 1·4; wing 2; tarsus ·7; bill from gape ·42; the second primary is intermediate between the eighth and ninth; the first primary is nearly ·6 inch in length.

*Distribution.* Throughout the Himalayas from Hazára and Kashmir to Bhutan. This Warbler also occurs, probably only as a winter visitor, in the Khási and Nága hills, in Manipur, and in the Salween district of Tenasserim, among the pine-forests. It occasionally descends to such low levels as the Dehra Doon.

It extends to N. China and S.E. Siberia in the summer.

*Habits, &c.* This bird breeds commonly in the Himalayas, at considerable altitudes. It builds its nest in May or June, constructing a domed structure of moss and lichen, lined with feathers, low down on the bough of a pine. The eggs, five in number, are white spotted with red, and measure ·54 by ·44.

### 416. **Phylloscopus subviridis.** *Brooks's Willow-Warbler.*

Reguloides subviridis, *Brooks, Proc. A. S. B.* 1872, p. 148; *Hume, S. F.* iv, p. 494; *Brooks, S. F.* vii, p. 477; *Hume, Cat.* no. 566 bis; *Brooks, S. F.* viii, pp. 392, 482; *Biddulph, Ibis,* 1881, p. 66; *Scully, Ibis,* 1881, p. 449.

Phylloscopus subviridis (*Brooks*), *Seebohm, Cat. B. M.* v, p. 74, pl. iv, fig. 2; *Oates in Hume's N. & E.* 2nd ed. i, p. 262.

*Coloration.* Central coronal streak, supercilium, sides of the head, and the whole lower plumage yellow suffused with an ochraceous tinge; lores and behind the eye dusky; upper plumage and margins of wings and tail clear greenish yellow; tips to greater wing-coverts pale yellow and distinct; tips to median-coverts greenish yellow and less distinct.

Iris black; legs and feet greyish green; bill greenish horny (*G. F. L. Marshall*).

Length about 4·3; tail 1·8; wing 2·3; tarsus ·7; bill from gape ·45; the first primary is about ·55 long; the second primary is between the seventh and tenth.

*Distribution.* This species is found in winter in the North-west Provinces and the Panjab, apparently not ranging eastward of Allahabad. It occurs at Simla on migration, and breeds in Kashmir and Afghanistan, but the nest has not yet been found.

### 417. **Phylloscopus superciliosus.** *The Crowned Willow-Warbler.*

Motacilla superciliosa, *Gm. Syst. Nat.* i, p. 975 (1788).

Reguloides modestus (*Gould*), *Blyth, Cat.* p. 184 (part.).

Reguloides proregulus (*Pall.*), *Horsf. & M. Cat.* i, p. 342; *Jerd. B. I.* ii, p. 197.

Reguloides superciliosus (*Gm.*), *Brooks, S. F.* vii, pp. 128, 236, 475, viii, p. 392; *Hume, Cat.* no. 565; *id. S. F.* xi, p. 222; *Barnes, Birds Bom.* p. 230.

Phylloscopus superciliosus (*Gm.*), *Anders. Yunnan Exp., Aves,* p. 625; *Seebohm, Cat. B. M.* v, p. 68; *Oates, B. B.* i, p. 87.

*The Crowned Tree-Warbler,* Jerd.

*Coloration.* Upper plumage olive-green; a very indistinct and irregular coronal streak greenish grey; a well-defined supercilium, reaching to the nape, pale greenish yellow; the crown of the head darker than the other parts; wings and wing-coverts dark brown, edged with yellowish green, the median and greater coverts with conspicuous yellowish tips, forming two distinct wing-bars; the quills tipped conspicuously with whitish; tail brown, edged with yellowish green on the outer webs; lores and ear-coverts mixed brown and yellow; lower plumage yellowish white; axillaries and lower wing-coverts yellow. Before the seasonal moults, the plumage becomes very dull.

Upper mandible brown; lower mandible yellowish white tipped with brown; legs brownish flesh-colour; iris brown; claws pale brown.

Length 4; tail 1·8; wing 2·1; tarsus ·7; bill from gape ·5; the second primary is generally intermediate in length between the sixth and seventh; the first primary measures about ·5 inch in length.

*Distribution.* A common winter visitor to the eastern portion of the Empire, being found throughout Burma, Assam, and Bengal, to about the longitude of Mudhupur on the E.I. Railway, where the next species commences to be observed. I have seen no specimen from the west of Mudhupur; but Butler records *P. superciliosus* from the Sahyádri range of hills in the Deccan, and terms it a cold weather visitant, implying by this, I consider, that it is not rare or exceptional. It is remarkable that it should occur in that part of India.

### 418. **Phylloscopus humii.** *Hume's Willow-Warbler.*

Abrornis tenuiceps*, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844); *Gray, Cat. Mamm. etc. Nepal,* pp. 66, 152 (1846); *Hodgs. J. A. S. B.* xxiv, p. 575 (1855).

Reguloides superciliosus (*Gm.*), *apud Brooks, J. A. S. B.* xli, pt. ii, p. 81; *Hume, N. & E.* p. 364.

Reguloides humii, *Brooks, S. F.* vii, pp. 131, 236, 475 (1878); *Hume, Cat.* no. 565 bis; *Scully, S. F.* viii, p. 307; *Brooks, S. F.* viii, pp. 385, 392, 481; *Barnes, Birds Bom.* p. 231.

Phylloscopus humii (*Brooks*), *Seebohm, Cat. B. M.* v, p. 67, pl. iv, fig. 1; *Oates in Hume's N. & E.* 2nd ed. i, p. 262.

*Coloration.* Resembles *P. superciliosus* but is lighter green above; the coronal band is still more indistinct and frequently absent altogether; the supercilium is buff fading to brownish white; the sides of the head and the lower plumage are suffused with buff; the lower wing-bar is pale yellowish and the upper one greenish, indistinct or sometimes absent altogether.

Upper mandible dark brown; tip of lower pale brown; rest of the lower mandible and gape dirty yellow; iris very dark brown; legs very dark greenish plumbeous; feet and claws many shades paler (*Davison*).

Of the same dimensions as *P. superciliosus*; the first primary is of the same length as in that species, and the second is generally between the eighth and ninth, but sometimes between the seventh and eighth.

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* Although this name was published three times over, yet on no occasion was a description of the bird given.

This and the preceding species are very distinct when in fresh or fairly good plumage. Birds in worn plumage are not easy to separate.

*Distribution.* A winter visitor to the plains of India, ranging as far east as about the longitude of Mudhupur on the E.I. Railway, where it meets *P. superciliosus*, and the two are found there together. It extends south to about the latitude of Belgaum. It is found throughout the Himalayas as far as Nepal, but it has not occurred in Sikhim. I cannot find it recorded from Sind or from the drier parts of Rajputana, but elsewhere within the limits above indicated it seems to be common. It is known to breed abundantly in Kashmir, and probably its migration does not extend beyond the Himalayas.

*Habits, &c.* The breeding-season seems to commence in May in Kashmir. The nest, a cup of coarse grass, lined with moss-roots, is built on the ground on banks and sides of ravines. The eggs, four or five in number, are white spotted with red, and measure ·56 by ·44.

### 419. **Phylloscopus mandellii.** *Mandelli's Willow-Warbler.*

Reguloides mandellii, *Brooks, S. F.* viii, pp. 389, 481 (1879).

*Coloration.* Resembles *P. superciliosus* very closely, but has the upper plumage a darker green; the coronal streak is equally ill-defined, but the lateral bands are a dark blackish olive, very much darker than the back; the supercilium is buff; the wing-bars are dull yellow, and the upper one is indistinct and tinged with green.

Upper mandible black; lower mandible yellow at base, blackish at tip; legs and feet pale yellowish (*Brooks*).

Length about 4·1; tail 1·7; wing 2·2; tarsus ·75; bill from gape ·4; the second primary is about equal to the ninth.

I have seen very few specimens of this bird, but these few are quite distinct from *P. superciliosus* and *P. humii*, neither of which approaches its rich coloration.

*Distribution.* The Khási hills and Sikhim, where this species is probably a resident.

## Genus **ACANTHOPNEUSTE**, Blasius, 1858.

The genus *Acanthopneuste*, which contains eleven Indian species, differs from *Phylloscopus*, as already noted, in having a proportionally larger bill and the nostrils overhung by frontal hairs growing from the rictus or gape quite up to the culmen. In other respects the two genera are alike.

The following descriptions of the plumage, as in *Phylloscopus*, are brief and applicable to the birds after the autumn moult on first arrival in the plains. The differences between the winter and the summer plumages are too trivial to require separate notice. These birds are among the most difficult to identify, and the student will find the points set forth in the key and in the short characters I have given of more service than long elaborate descriptions.

*Key to the Species.*

| | |
|---|---|
| *a*. With no band on crown of head. | |
| *a*′. Second primary about equal to sixth .. | *A. borealis*, p. 412. |
| *b*′. Second primary between sixth and eighth. | |
| *a*″. Upper plumage lively green; lower rather bright yellow .............. | *A. nitidus*, p. 413. |
| *b*″. Upper plumage dull green; lower greyish yellow. | |
| *a*‴. With one wing-bar ............ | *A. viridanus*, p. 414. |
| *b*‴. With two wing-bars ............ | *A. plumbeitarsus*, p. 414. |
| *c*″. Upper plumage very dark green; lower greyish yellow.............. | *A. magnirostris*, p. 415. |
| *d*″. Upper plumage tinged with ochraceous; lower with buff............ | *A. tenellipes*, p. 416. |
| *c*′. Second primary about equal to tenth .. | *A. lugubris*, p. 417. |
| *b*. With a coronal band. | |
| *d*′. Inner webs of two outer pairs of tail-feathers brown like remainder of tail. | |
| *e*″. Lower plumage whitish, contrasting with bright yellow of under tail-coverts......................... | *A. coronatus*, p. 417. |
| *f*″. Lower plumage uniform pale yellow. | |
| *c*‴. Larger; wing 2·3 to 2·7; tail about 2 ...................... | *A. occipitalis*, p. 418. |
| *d*‴. Smaller; wing 2·1 to 2·3; tail about 1·8 .................... | *A. trochiloides*, p. 419. |
| *e*′. Inner webs of two outer pairs of tail-feathers entirely white............. | *A. davisoni*, p. 419. |

### 420. **Acanthopneuste borealis.** *The Arctic Willow-Warbler.*

Phyllopneuste borealis, *Blas. Naum.* 1858, p. 313; *Hume, S. F.* iv, p. 290.

Phylloscopus borealis (*Blas.*), *Hume & Dav. S. F.* vi, p. 352; *Hume, Cat.* no. 556 bis; *Oates, S. F.* x, p. 222; *id. B. B.* i, p. 77; *Seebohm, Cat. B. M.* v, p. 40; *Hume, S. F.* xi, p. 218.

*Coloration.* Upper plumage olive-green, lighter on the rump; wings brown, the outer webs edged with olive-green; wing-coverts brown on the inner and olive-green on the outer webs; the median and greater coverts with yellowish-white tips, forming two bars; tail brown, the outer webs edged with olive-green; a broad and well-defined eye-streak, reaching to the nape, yellowish white; lores brown; ear-coverts olive, mingled with yellowish; under plumage white, suffused with yellow; under wing-coverts and axillaries pale yellow.

As the summer goes on the wing-bars get worn away and the upper one is sometimes absent. The lower plumage gets whiter and the upper plumage duller. After the autumn moult the wing-bars are very conspicuous and the underparts become suffused with deeper yellow.

Upper mandible dark brown, the edges and tip yellow; gape and basal half of the lower mandible orange-yellow, terminal half dusky; mouth bright orange-yellow; iris dark brown; legs flesh-colour, tinged with yellow; claws yellowish horn-colour.

Length 4·8; tail 2; wing 2·7; tarsus ·8; bill from gape ·68; the second primary is intermediate in length between the fifth and sixth, and is sometimes equal to the sixth; the first primary is very small, measuring from ·3 to ·45 inch in length.

*Distribution.* A fairly common winter visitor to Southern Pegu and Tenasserim, arriving about the middle of September. Hume met with it at Aimole on the eastern hills of Manipur in the middle of April. It has been procured in the South Andaman, from which locality I have examined two specimens.

It has a wide range in winter through South-eastern Asia, and it summers in Northern Asia.

### 421. **Acanthopneuste nitidus.** *The Green Willow-Warbler.*

Phylloscopus nitidus, *Blyth, J. A. S. B.* xii, p. 965 (1843); *id. Cat.* p. 184; *Jerd. B. I.* ii, p. 193; *Hume, Cat.* no. 559; *Legge, Birds Ceyl.* p. 551; *Reid, S. F.* x, p. 47; *Scully, Ibis,* 1881, p. 448; *Seebohm, Cat. B. M.* v, p. 4; *Barnes, Birds Bom.* p. 228.

*The Bright-green Tree-Warbler,* Jerd.

*Coloration.* Upper plumage and the sides of the neck bright yellowish green; wing-coverts brown, edged with yellowish green; the median coverts faintly, the greater coverts distinctly tipped with pale yellow; wings and tail brown, narrowly edged green, the outer tail-feathers margined with white interiorly; lores and behind the eye olive; a very distinct yellow supercilium from the bill to the nape; the whole lower plumage primrose-yellow; the axillaries and under wing-coverts brighter.

In summer the plumage is probably much the same as in winter.

Iris dark brown; legs and feet olive-grey; bill brown above, flesh-coloured below (*Butler*).

Length about 5; tail 2; wing 2·4; tarsus ·8; bill from gape ·6; the length of the second primary is between the sixth and seventh, or equal to the eighth; the first measures ·55.

*Distribution.* A winter visitor to the whole of India from the Himalayas to Ceylon, and from Sind to about the longitude of Calcutta. Its summer-quarters are not known with certainty, but they are not unlikely to be in Kashmir and the higher levels of the Himalayas.

### 422. **Acanthopneuste viridanus.** *The Greenish Willow-Warbler.*

Phylloscopus viridanus, *Blyth, J. A. S. B.* xii, p. 967 (1843); *id. Cat.* p. 185; *Horsf. & M. Cat.* i, p. 338; *Jerd. B. I.* ii, p. 193; *Hume & Henders. Lahore to Yark.* p. 220, pl. xix; *Scully, S. F.* iv, p. 148; *Anders. Yunnan Exped., Aves,* p. 624; *Brooks, S. F.* vii, p. 508; *Hume, Cat.* no. 560; *Brooks, S. F.* viii, p. 385; *Legge, Birds Ceyl.* p. 555; *Seebohm, Cat. B. M.* v, p. 44; *Oates, B. B.* i, p. 80; *Barnes, Birds Bom.* p. 229; *Hume, S. F.* xi, p. 219.

*The Greenish Tree-Warbler,* Jerd.

*Coloration.* Upper plumage dull olive-green, lighter on the rump; wings and tail brown, with the outer webs edged with olive-green; wing-coverts brown, edged broadly with olive-green; the greater coverts tipped with the same colour, forming a wing-bar; a well-defined narrow eye-stripe reaching to the nape yellowish white; lores and feathers behind the eye brown; ear-coverts greenish yellow; lower plumage pale greyish yellow; under wing-coverts and axillaries pale yellow.

In summer the plumage becomes paler. Just before the seasonal moult the wing-bar frequently disappears by abrasion.

Upper mandible dusky brown; lower yellowish brown; iris dark brown; legs and feet brownish grey; claws brown horny (*Scully*).

Length 4·2; tail 1·7; wing 2·2; tarsus ·7; bill from gape ·6; the second primary is intermediate in length between the seventh and the eighth, but occasionally equals the eighth; the first primary is rather large, measuring from ·5 to ·7 inch in length.

*Distribution.* Throughout the whole length of the Himalayas from the Hazára country to Sikhim, and over the whole peninsula of India down to Ceylon, with the exception of Sind and the western portion of Rajputana. To the east this species extends commonly to Calcutta, and has been found in Northern Sylhet. I formerly reported it from Burma on the authority of Blyth, but there can be little doubt now that it does not occur in that Province. Hume also at one time identified some Tenasserim birds with this species, but afterwards he declared them to be *A. plumbeitarsus.* The whole Hume and Tweeddale collections do not contain a specimen from Burma.

In summer this species appears to retreat to the higher parts of the Himalayan range, and probably breeds at these higher altitudes. Its nest, however, has not yet been found by anyone.

### 423. **Acanthopneuste plumbeitarsus.** *Middendorff's Willow-Warbler.*

Phylloscopus plumbeitarsus, *Swinh. Ibis,* 1861, p. 330; *Hume & Dav. S. F.* vi, p. 355; *Brooks, S. F.* vii, p. 508; *Hume, Cat.* no. 558 bis; *Brooks, S. F.* viii, p. 385; *Bingham, S. F.* ix, p. 187; *Seebohm, Cat. B. M.* v, p. 45; *Oates, S. F.* x, p. 222; *id. B. B.* i, p. 79.

Phylloscopus seebohmi, *Hume, S. F.* v, p. 335 (1877); *Hume & Dav. S. F.* vi, p. 356; *Hume, Cat.* no. 558 ter.

Phylloscopus viridanus, *Blyth, apud Hume & Dav. S. F.* vi, p. 356; *Hume, S. F.* xi, p. 219.

*Coloration.* So similar to *P. viridanus*, of which this is the eastern form, as to require no separate description. *P. plumbeitarsus* differs in having the median wing-coverts, as well as the greater coverts, tipped with yellowish white, thus having two wing-bars. When the upper bar is abraded, it is difficult to separate the two species.

Upper mandible brown, lower clear yellow; iris brown; mouth yellow; legs pale plumbeous-brown, the toes tinged with yellow; claws pale horn-colour.

Of the same dimensions as *A. viridanus.*

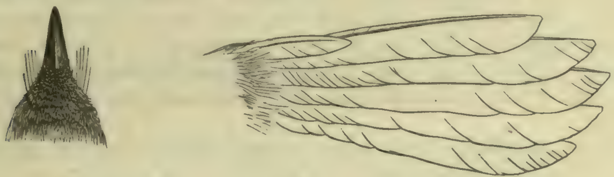
The *Phylloscopus seebohmi* of Hume would now appear to have been this species in spring plumage, and not *A. viridanus*, which does not occur in Burma.

*Distribution.* A common winter migrant to Southern Pegu, and the northern portion of Tenasserim down to Mergui, from the middle of September to the end of April. It appears to summer in Turkestan and southern Siberia.

### 424. **Acanthopneuste magnirostris.** *The Large-billed Willow-Warbler.*

Phylloscopus magnirostris, *Blyth, J. A. S. B.* xii, p. 966 (1843); *Horsf. & M. Cat.* i, p. 336; *Jerd. B. I.* ii, p. 191; *Brooks, J. A. S. B.* xli, pt. ii, p. 79, xliii, pt. ii, p. 247; *id. S. F.* iii, p. 243; *Hume & Dav. S. F.* vi, p. 352; *Hume, Cat.* no. 556; *Legge, Birds Ceyl.* p. 553; *Seebohm, Cat. B. M.* v, p. 47; *Oates, B. B.* i, p. 82; *Barnes, Birds Bom.* p. 228.

*The Large-billed Tree-Warbler,* Jerd.



Figs. 130, 131.—Bill and wing of *A. magnirostris.*

*Coloration.* Upper plumage very dark olive-green, darker on the head; wing-coverts and wings brown, edged with olive-green; the median coverts with small, and the greater coverts with large, yellowish-white tips, forming two wing-bars; tail brown, edged with olive-green on the outer webs, and tipped paler beneath; eye-streak, well defined and reaching to the nape, yellowish white; lores and feathers behind the eye brown; ear-coverts yellowish white, suffused with brown; lower plumage pale yellow, suffused with grey on the breast and flanks; axillaries and under wing-coverts greyish yellow.

In summer the plumage becomes duller.

Irides earth-brown; legs carneous; claws and feet yellowish white; bill horny (*Cripps*).

Length 5·4; tail 2·2; wing 2·7; tarsus ·75; bill from gape ·65; the second primary is intermediate in length between the seventh and eighth; the first primary is very large, being about ·7 inch long.

*Distribution.* A winter visitor to India, not found in Sind, the Punjab, Rajputana, or Guzerat, but ranging south to Ceylon, and eastward to Shillong, whence I have seen a specimen killed in August. This species also occurs very rarely in Burma. Blyth records it from Arrakan. I have examined a specimen from Toungngoo, and Hume states that it is a rare cold-weather visitant to the central portions of Tenasserim *. In the summer it is found along the whole range of the Himalayas, from Kashmir to as far at least as Sikhim. Many birds probably remain in the lower ranges throughout the winter. The nest has not yet been found, but this species undoubtedly breeds in Kashmir.

### 425. **Acanthopneuste tenellipes.** *The Pale-legged Willow-Warbler.*

Phylloscopus tenellipes, *Swinh. Ibis*, 1860, p. 53; *Brooks, S. F.* iv, p. 276; *Hume & Dav. S. F.* vi, pp. 354, 517; *Hume Cat.* no. 556 quat.; *Seebohm, Cat. B. M.* v, p. 46; *Oates, S. F.* x, p. 222; *id. B. B.* i, p. 81.

*Coloration.* Upper plumage olive-brown, suffused with ochraceous, especially on the rump; eye-streak narrow but well defined, extending to the nape, buffish white; lores and feathers behind the eye blackish; ear-coverts mingled buff and brown; wings brown, edged with the colour of the back; wing-coverts brown, very broadly edged with the colour of the back, the median coverts paler at the tips, forming an indistinct wing-bar; greater coverts broadly tipped with buff, forming a distinct lower bar; lower plumage white, suffused with buff, especially on the vent and flanks.

Upper mandible brown, lower one pale fleshy, dusky at tip; legs and claws pale flesh-colour; iris brown.

Length 5·15; tail 2; wing 2·7; tarsus ·73; bill from gape ·63; the second primary is intermediate in length between the sixth and seventh, or sometimes equal to the seventh; the first primary is about ·55 inch in length.

*Distribution.* A winter visitor to Burma, but a comparatively rare one. I procured it at Kyeikpadein on a few occasions in January, February, and April. I did not meet with it in any other part of Pegu. Mr. Davison obtained it at various points in Tenasserim, from Kyouknyat down to Malawún, at which latter place my men also got several specimens. Further south it has been procured at Kussoom in the Malay peninsula.

It probably summers in China and Japan.

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* I have not, however, been able to discover any Tenasserim examples of this species in the Hume Collection.

### 426. **Acanthopneuste lugubris.** *The Dull-green Willow-Warbler.*

Phyllopneuste lugubris, *Blyth, A. M. N. H.* xii, p. 98 (1843) *id. J. A. S. B.* xii, p. 968.

Phylloscopus lugubris (*Blyth*), *Blyth, Cat.* p. 185; *Horsf. & M. Cat.* i, p. 337; *Jerd. B. I.* ii, p. 192; *Blanf. J. A. S. B.* xli, pt. ii, p. 53; *Armstrong, S. F.* iv, p. 329; *Hume & Dav. S. F.* vi, p. 355; *Anders. Yunnan Exped., Aves*, p. 624; *Brooks, S. F.* viii, p. 480; *Hume, Cat.* no. 558; *id. S. F.* ix, p. 255; *Scully, Ibis*, 1881, p. 448; *Seebohm, Cat. B. M.* v, p. 48; *Oates, B. B.* i, p. 83; *Barnes, Birds Bom.* p. 228; *Hume, S. F.* xi, p. 219.

Phylloscopus burmanicus, *Brooks, S. F.* ix, p. 272; *Oates, S. F.* x, p. 223; *id. B. B.* i, p. 80.

*The Dull-green Tree-Warbler*, Jerd.

*Coloration.* Very similar to *A. magnirostris*, but rather darker and smaller, and differing also in the proportions of the primaries.

Upper mandible dark brown, lower one yellowish, somewhat dusky on the terminal half; iris brown; mouth yellow; legs brown; claws horn-colour.

Length 5; tail 2·1; wing 2·6; tarsus ·75; bill from gape ·62; the second primary is intermediate in length between the ninth and tenth, and sometimes equals the tenth; the first primary is very long, being sometimes ·8 inch in length.

*Distribution.* Winters in Bengal, the Assam valley, and the whole of the country south of this to the central portion of Tenasserim. Jerdon states that this bird is spread throughout India, and that he procured it in the Nilgiris, the Wynaad, and also at Nellore. More recent observers have recorded it from Ahmednagar, Nagar, and the Pánch Mahàls. I have myself been unable to detect any specimens of this species in the British Museum collection from any locality west of Bengal and Sikhim, and I have doubts about its being so widely spread as Jerdon asserts, and still more of its being found so far to the west as the Pánch Mahàls and the Deccan. In winter it occurs in the Andamans.

It summers in the higher parts of Sikhim, and probably in other parts of the Himalayas east of this. Hodgson obtained this bird, but his notes do not state whether his specimens were procured in Nepal or Sikhim, and it was most likely in the latter, where he collected very largely. Scully failed to meet with it in Nepal.

### 427. **Acanthopneuste coronatus.** *Temminck's Crowned Willow-Warbler.*

Ficedula coronata, *Temm. & Schleg. Fauna Jap., Aves*, p. 48, pl. xviii, (1847).

Phyllopneuste coronata (*T. & S.*), *Brooks, S. F.* iv, p. 275.

Reguloides coronata (*T. & S.*), *Hume & Dav. S. F.* vi, p. 356; *Hume, Cat.* no. 563 bis; *id. S. F.* xi, p. 220.

Phylloscopus coronatus (*T. & S.*), *Seebohm, Cat. B. M.* v, p. 49; *Oates, S. F.* x, p. 223; *id. B. B.* i, p. 84.

*Coloration.* Upper plumage olive-green, the head suffused with dusky; an irregular greyish-yellow streak from the forehead to the nape over the centre of the head; a well-defined yellowish-white supercilium reaching to the nape; lores and feathers behind the eye brown; ear-coverts mixed yellowish and dusky; wing-coverts and wings brown, edged with yellowish green, the median coverts with small, the greater coverts with larger, yellowish tips, forming two wing-bars; tail olive-brown, edged with yellowish green on the outer webs; lower plumage white, tinged with yellow on the breast and flanks; lower tail-coverts yellow. The summer plumage is duller, owing to the feathers being abraded.

Upper mandible brown; lower mandible yellowish; mouth yellow; legs and feet plumbeous.

Length 5·2; tail 2·1; wing 2·4; tarsus ·7; bill from gape ·6; the second primary is intermediate in length between the sixth and seventh; the first primary is about ·5 inch long.

*Distribution.* A winter visitor from September to April in Southern Pegu and Southern Tenasserim, and probably the intervening tract. Hume obtained this bird in Manipur in February. It extends to Java in the winter, and it summers in Japan and South-eastern Siberia.

### 428. **Acanthopneuste occipitalis.** *The Large Crowned Willow-Warbler.*

Phyllopneuste occipitalis, *Jerd., Blyth, J. A. S. B.* xiv, p. 593 (1845); *id. Cat.* p. 183.

Reguloides occipitalis (*Jerd.*), *Jerd. B. I.* ii, p. 196; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 107; *Brooks, J. A. S. B.* xli, pt. ii, p. 81; *Cock & Marsh. S. F.* i, p. 355; *Hume, N. & E.* p. 362; *Hume, Cat.* no. 563; *Biddulph, Ibis,* 1881, p. 66; *Scully, Ibis,* 1881, p. 449; *Barnes, Birds Bom.* p. 230; *Hume, S. F.* xi, p. 220.

Phylloscopus occipitalis (*Jerd.*), *Anders. Yunnan Exped., Aves,* p. 626; *Seebohm, Cat. B. M.* v, p. 50.

Acanthopneuste occipitalis (*Jerd.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 267.

*The Large Crowned Warbler,* Jerd.

*Coloration.* Resembles *A. coronatus* very closely. Differs in having the whole lower plumage of one uniform tint, the under tail-coverts not being of a deeper yellow than the other parts, and in having the second primary usually intermediate between the seventh and eighth.

Legs and feet pale brown, yellowish on feet; soles yellow; upper mandible brown, lower one horny brown; iris brown (*Hume Coll.*).

Length about 5·3; tail 2·1; wing 2·6; tarsus ·7; bill from gape ·6; the first primary measures about ·6.

*Distribution.* This Warbler is found in winter throughout the peninsula of India from the foot of the Himalayas to about the latitude of Belgaum and Nellore, and from Sind to the longitude of Calcutta. It is also found more sparingly to the east of Calcutta up the valley of Assam to Dibrugarh, at Shillong, and in North Cachar.

In summer it retires to the higher parts of the Himalayas, where it breeds commonly.

*Habits, &c.* Breeds in Kashmir and the north-west Himalayas from May to July, constructing a rude nest of moss and leaves in a hole at the root of a tree, and laying five pure white eggs, which measure ·65 by ·5.

### 429. **Acanthopneuste trochiloides.** *Blyth's Crowned Willow-Warbler.*

Acanthiza trochiloides, *Sundev. Physiogr. Sallskapets Tidsk.* i, (1838) *id. A. M. N. H.* xviii, p. 252 (1846).
Phyllopneuste reguloides, *Blyth, J. A. S. B.* xi, p. 191 (1842).
Reguloides trochiloides (*Sundev.*), *Blyth, Cat.* p. 184; *Horsf. & M. Cat.* i, p. 343; *Jerd. B. I.* ii, p. 196; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 46; *Hume, Cat.* no. 564; *Scully, S. F.* viii, p. 307; *Brooks, S. F.* x, p. 169.
Phylloscopus viridipennis, *Blyth, J. A. S. B.* xxiv, p. 275 (1855); *Anders. Yunnan Exped., Aves*, p. 626.
Reguloides viridipennis (*Blyth*), *Jerd. B. I.* ii, p. 198; *Brookes, S. F.* iii, p. 245; *Scully, S. F.* iv, p. 149.
Phylloscopus flavo-olivaceus, *Hume, S. F.* v, p. 504 (1877).
Reguloides flavo-olivaceus (*Hume*), *Hume, Cat.* no. 564 bis; *id. S. F.* ix, p. 291.
Phylloscopus trochiloides (*Sundev.*), *Oates, S. F.* x, p. 223.
Phylloscopus reguloides (*Blyth*), *Seebohm, Cat. B. M.* v, p. 51; *Oates, B. B.* i, p. 85.

*The Median Crowned Warbler*; *the Green-winged Warbler*, Jerd.

*Coloration.* Similar to *A. occipitalis*, from which this species differs in being much darker green above, in having the hinder part of the crown and nape darker, in being smaller, and in having the second primary intermediate between the eighth and ninth or the ninth and tenth, or even equal to the first secondary.

Upper mandible dark brown; lower one with the gape, and the edges of the upper yellow; mouth orange-yellow; iris dark hazel-brown; legs yellowish brown; claws light brown.

Length about 4·5; tail 1·8; wing 2·1 to 2·3; tarsus ·7; bill from gape ·6; the first primary measures about ·6.

*Distribution.* In winter this species appears to be found in Bengal, the Assam valley up to Dibrugarh, and southwards through the hill-tracts to Southern Pegu and the northern parts of Tenasserim.

In summer it has been observed in the Himalayas from Kashmir to Sikhim, and probably it also winters in the lower valleys of these parts. Stoliczka observes that in summer it is common all through the valley of the Sutlej river from Kotgarh to Chini, where it breeds from 9000 to 10,000 feet. Scully observed it in Turkestan. Its nest has not yet been found.

### 430. **Acanthopneuste davisoni.** *The Tenasserim White-tailed Willow-Warbler.*

Reguloides viridipennis (? *Blyth*), *apud Wald. in Blyth Birds Burm.* p. 106.
Reguloides viridipennis (*Blyth*), *apud Hume, S. F.* v, p. 330; *Hume & Dav. S. F.* vi, p. 358; *Hume, Cat.* no. 567; *id. S. F.* vii, p. 453, ix, p. 291, xi, p. 223.
Phylloscopus viridipennis, *Blyth, apud Seebohm, Cat. B. M.* v, p. 53.
Phylloscopus presbytis (*S. Müll.*), *apud Oates, B. B.* i, p. 86; *Brooks, Ibis,* 1889, p. 576.
Acanthopneuste davisoni, *Oates*; *Oates in Hume's N. & E.* 2nd ed. i, p. 269.

*Coloration.* Very similar to *A. trochiloides*, but differing in being smaller and in having the inner webs of the two outside tail-feathers white.

Legs and feet rather pale brown; soles yellowish; upper mandible dark brown; lower wax-yellow; iris brown (*Hume*).

Length about 4·3; tail 1·7; wing 2·1; tarsus ·75; bill from gape ·55; the second primary is about equal to the tenth; the first primary is about ·55 inch long.

After a careful reconsideration of the synonymy of this species I am reluctantly compelled to give it a name and I have much pleasure in naming it after Davison, its discoverer.

The history of the species is briefly this. In 1855 Blyth described a Willow-Warbler from Tenasserim under the name of *Phylloscopus viridipennis.* He neglected to state what the colour of the tail was; an all-important matter. Davison, many years after, procured a white-tailed Willow-Warbler in Tenasserim, and Hume unhesitatingly identified it with *P. viridipennis*, Blyth. Against this, we have Brooks's positive evidence that he examined Blyth's types in Calcutta and found them to be the bird we know as *A. trochiloides.* The opinion of Brooks on such a subject is in my opinion conclusive. We also have Jerdon describing *P. viridipennis*, Blyth, in the 'Birds of India,' as having an olive-green tail, no mention being made of any white feathers, and he states that it occurs at Darjiling. This locality coupled with the description point to *A. trochiloides*; for the Tenasserim white-tailed bird is not known to occur in Sikhim.

It must be borne in mind that Blyth's *P. viridipennis* is just as likely to have been *A. trochiloides* as the present species discovered by Davison, for both species were found by Davison in Tenasserim, the former in the Salween district, the latter on Muleyit mountain, no great distance apart. For all these reasons therefore I reject Blyth's name as inadmissible for the present form.

In 1870 Blyth visited the Leyden Museum and there observed a white-tailed Willow-Warbler which Müller in 1835 had named *presbytis* without a description. Leaving alone such a minor complication as that of this bird being labelled "Timor," while Müller's bird came from Sumatra, it is to be noticed that this white-tailed *Acanthopneuste* did not recall to Blyth any recollection of his Tenasserim bird. He describes Müller's bird as something distinctly new. I require no better evidence than this to convince me that Blyth had never described a white-tailed *Acanthopneuste* of this type before. He would, of course, not associate it with his *Abrornis maculipennis*, which is a totally different bird, and one to which no special reference was necessary; but it was to be expected that he would mention his *Phylloscopus viridipennis*, if it had been a white-tailed species, as one closely allied to *A. presbytis*.

This *A. presbytis*, judging from specimens in the British Museum collected by Wallace in Timor, is not by any means identical with the bird procured by Davison on Muleyit, having a browner head and a much larger bill, and I should not have noticed it in this work had not Seebohm united it with *Phylloscopus viridipennis*, Blyth, apud Hume. I did not inquire very minutely into the matter when writing the 'Birds of Burmah,' but I have now devoted considerable time to the subject, and I think it far from established that the Timor bird described by Blyth is identical with the Tenasserim white-tailed Willow-Warbler. Looking to this and to the very unsatisfactory history of the synonymy of this species, I prefer to denote it by a new name.

*Distribution.* Discovered on Muleyit mountain in Tenasserim, where it breeds and appears to be a permanent resident. I have examined two specimens procured by Wardlaw Ramsay on the Karen Hills and Karennee respectively, and Hume procured this species in Manipur above Bishnupur on the 17th February, at an elevation of about 3300 feet.

*Habits, &c.* Davison found the nest of this species on Muleyit, at an elevation of over 6000 feet, placed in a mass of creepers growing over the face of a rock. The nest was a globular structure constructed of moss and leaves and lined with vegetable down. It contained three pure white eggs which measured ·59 by ·49.

## Genus **CRYPTOLOPHA**, Swains., 1837.

The genus *Cryptolopha* contains nine Indian species of Warblers of very bright plumage in which yellow or green is the predominant colour. They approach the Flycatchers in the enormous development of the frontal hairs, but differ from them in the young not being spotted and in having a partial spring moult. This spring moult is confined to the wings and tail. Two specimens of *C. castaneiceps* procured in Native Sikhim in April and now in the British Museum show this moult in progress, otherwise I should have entertained doubts about it. The plumage of the young is exactly the same as that of the adult. All the species are resident.

In *Cryptolopha* the bill is about half the length of the head, very broad and blunt; the rictal bristles are greatly developed and the frontal hairs extend quite up to the culmen and reach beyond the nostrils, in some cases nearly up to the tip of the bill; the wing is somewhat rounded, the first primary being small and the second and third graduated; the tail is moderate, square or slightly forked in some cases.

The Flycatcher-Warblers resemble the Willow-Warblers in their mode of life, frequenting trees and shrubs and feeding on the insects which infest the leaves. They are not known to have any song. They are most numerous on the hills and are somewhat rare in the plains. So far as is known all the species lay pure white eggs.

*Key to the Species.*

| | |
|---|---|
| *a.* Entire lower plumage deep yellow. | |
| *a′* Lateral bands on crown black, median band well-defined. | |
| *a″.* A white ring round eye; sides of head bluish grey ...................... | *C. affinis,* p. 422. |
| *b″.* A yellow ring round eye; sides of head yellowish. | |
| *a‴.* Lateral black coronal bands not extending to forehead.............. | *C. tephrocephala,* p. 423. |
| *b‴.* Lateral black coronal bands extending to base of bill .............. | *C. burkii,* p. 424. |
| *b′.* Lateral bands on crown ashy; median band ill-defined. | |
| *c″.* Lateral bands pale ashy, concolorous with back ...................... | *C. xanthoschista,* p. 425. |
| *d″.* Lateral bands dark blackish ashy, much darker than back.................. | *C. jerdoni,* p. 425. |
| *b.* Lower plumage not entirely yellow. | |
| *c′.* Inner webs of outer tail-feathers white. | |
| *e″.* Chin grey; crown blackish .......... | *C. poliogenys,* p. 426. |
| *f″.* Chin, throat, and upper breast grey; crown chestnut .................. | *C. castaneiceps,* p. 427. |
| *d′.* Inner webs of outer tail-feathers not white. | |
| *g″.* Chin, throat, and under tail-coverts bright yellow; abdomen white...... | *C. cantator,* p. 427. |
| *h″.* Whole lower plumage greyish white except under tail-coverts, which are bright yellow .................... | *C. fulviventris,* p. 428. |

### 431. **Cryptolopha affinis.** *The Allied Flycatcher-Warbler.*

Abrornis affinis, *Hodgs.*, *Horsf. & M. Cat.* i, p. 341 (1854); *Jerd. B. I.* ii, p. 204; *Godw.-Aust. J. A. S. B.* xlvii, pt. ii, p. 18; *Hume, Cat.* no. 576; *id. S. F.* xi, p. 226.

Cryptolopha affinis (*Hodgs.*), *Sharpe*, *Cat. B. M.* iv, p. 398 (part.).

*The Allied Warbler,* Jerd.

*Coloration.* Sides of the crown broadly black, enclosing a broad median band of bluish grey; a very conspicuous white ring round the eye, a short indistinct black line over it, between which and the black coronal streak is a bluish-grey supercilium reaching to the nape; entire sides of the head bluish grey; lores yellowish green; entire lower plumage bright yellow; the whole upper plumage and the edges to the wings and tail olive-green; the greater coverts tipped with yellowish white, and the two outer pairs of tail-feathers largely white on the inner webs.

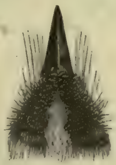

Fig. 132.—Bill of *C. affinis.*

Length rather more than 4; tail 1·8; wing 2·1; tarsus ·7; bill from gape ·55.

*Distribution.* Occurs in Sikhim, and probably in Nepal, in the Khási and Nága hills, and in Manipur.

432. **Cryptolopha tephrocephala.** *Anderson's Flycatcher-Warbler.*

Culicipeta tephrocephalus, *Anders. P. Z. S.* 1871, p. 213; *Hume, S. F.* iii, p. 140; *Blyth & Wald. Birds Burm.* p. 107; *Anders. Yunnan Exped., Aves*, p. 626, pl. 50.
Cryptolopha tephrocephalus (*Anders.*), *Hume & Dav. S. F.* vi, p. 358; *Hume, Cat.* no. 569 bis; *Oates, S. F.* x, p. 223; *id. B. B.* i, p. 271.
Cryptolopha affinis (*Hodgs.*), *Sharpe, Cat. B. M.* iv, p. 398 (part.).

*Coloration.* Sides of the crown broadly black, enclosing a broad median band of bluish grey; a very conspicuous ring round the eye yellow; lores, cheeks, and lower part of the ear-coverts yellowish green sullied with brown; the upper part of the ear-coverts and a broad supercilium adjoining the black coronal streak bluish grey; the whole lower plumage bright yellow; the upper plumage olive, and the edges of all the wing-feathers and tail olive-green, the greater coverts tipped yellowish white; the two outer pairs of tail-feathers largely white on the inner webs.

Upper mandible brown, lower one yellow; mouth yellow; legs yellow; claws yellowish horn-colour.

Length about 4·3; tail 1·8; wing 2·2; tarsus ·75; bill from gape ·65.

This species differs from *C. affinis* in having a conspicuously larger bill, a ring of yellow instead of white round the eye, and the sides of the head yellowish instead of bluish grey.

*Distribution.* Throughout Pegu, Karennee, and the northern and central portions of Tenasserim, where it is probably a resident species. Blyth records the allied *C. burkii* from Arrakan, but it is more likely to be the present species which occurs there. It extends into China.

**433. Cryptolopha burkii.** *The Black-browed Flycatcher-Warbler.*

Sylvia burkii, *Burton, P. Z. S.* 1835, p. 153.
Culicipeta burkii (*Burton*), *Blyth, Cat.* p. 183; *Horsf. & M. Cat.* i, p. 341; *Jerd. B. I.* ii, p. 199; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 47; *McMaster, J. A. S. B.* xl, pt. ii, p. 212; *Blanford, J. A. S. B.* xli, pt. ii, p. 54.
Cryptolopha burkii (*Burton*), *Hume, Cat.* no. 569; *Sharpe, Cat. B. M.* iv, p. 395; *Hume, S. F.* xi, p. 224.

*The Black-browed Warbler,* Jerd.

*Coloration.* Two broad black bands, one on either side of the crown, reaching to the base of the bill, and enclosing an olive-green stripe; sides of the head up to the black coronal band yellow tinged with olive; a conspicuous yellow ring round the eye; the whole lower plumage bright yellow; the whole upper plumage olive-green; wings, coverts, and tail brown, edged with olive-green, the greater coverts also tipped with yellow; the two outer pairs of tail-feathers white on the inner webs, the third pair occasionally with some white.

Upper mandible deep brown; lower mandible pale yellowish brown; legs and feet pale brownish yellow; iris hazel (*Hume*).

Length about 4·5; tail 1·8; wing 2·1; tarsus ·75; bill from gape ·55.

*Distribution.* Throughout the Himalayas from the valley of the Sutlej river to Bhutan, and along the Assam valley to Dibrugarh. This species also occurs in the Khási hills, Sylhet, Cachar, and Manipur. Blyth records it from Arrakan, but he may have mistaken for it *C. tephrocephala*, which at that time had not been discriminated.

I cannot find any specimen of this species from the plains of India, but Blyth states that it is common near Calcutta in the cold season, and McMaster records it from Kamptee in the Central Provinces and Chikalda in Berar.

The next two species have been confounded by almost all writers except Hume and Brooks. The larger and paler form is the species to which Hodgson, judging by his types which are still in the British Museum, gave the name of *xanthoschistus*. It is also the species to which Blyth applied the name of *albosuperciliaris*.

The smaller and darker form was without a distinctive term till Brooks applied to it the name of *jerdoni*. It is also found in Nepal, and is the bird referred to by Scully (*l. c.*) as *Abrornis xanthoschistus*. Some of his specimens are in the British Museum, and I have been able to examine them*.

There is an extraordinarily fine series of both species in the

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* Scully may have procured both species in Nepal, and, judging from the large average measurements of his seventeen specimens, he probably did. But the birds which are now deposited in the British Museum as having been procured by him in Nepal are undoubtedly all *C. jerdoni*. He himself identifies them with the lower figure in 'Lahore to Yarkand,' which is the small dark form, *C. jerdoni*.

British Museum now, and the geographical distribution of each can be traced with ease. I understand Brooks to say (*l. c.*) that there are three species of this type of *Cryptolopha*, but I am unable to distinguish more than two from the series I have examined.

Both species are figured in 'Lahore to Yarkand.' The upper figure named *A. xanthoschistus* is rightly so called. The lower figure named *A. albosuperciliaris* should be *C. jerdoni.*

### 434. **Cryptolopha xanthoschista.** *Hodgson's Grey-headed Flycatcher-Warbler.*

Phyllopneuste xanthoschistos, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844, descr. nulla); *Gray, Cat. Mamm. &c. Nepal,* p. 151 (1846).
Abrornis albosuperciliaris, *Blyth, Jerd. B. I.* ii, p. 202 (1863); *Hume, N. & E.* p. 371; *Brooks, S. F.* iii, p. 245; *Hume, Cat.* no. 573.
Abrornis xanthoschistus (*Hodgs.*), *Hume & Henders. Lah. to Yark.* p. 220, pl. xx, fig. 1.
Cryptolopha xanthoschista (*Hodgs.*), *Sharpe, Cat. B. M.* iv, p. 398 (part.); *Oates in Hume's N. & E.* 2nd ed. i, p. 270.

*The White-browed Warbler,* Jerd.

*Coloration.* Forehead, crown, nape, mantle, and back pale ashy brown, with merely a trace of a paler mesial coronal band; scapulars, rump, and upper tail-coverts yellowish green; wings and tail brown, with margins of yellowish green, the two outer pairs of tail-feathers white on the inner web; a white supercilium from the nostrils to the nape; lores and behind the eye dark brown; edges of the eyelids white; sides of the head and of the neck ashy-brown; the whole lower plumage bright yellow.

Upper mandible brownish black; lower one horny yellow; iris blackish brown; tarsus plumbeous; toes brownish; soles yellow; claws dusky (*Scully*).

Length about 4·3; tail 1·8; wing 2·3; tarsus ·75; bill from gape ·55.

*Distribution.* Found throughout the Himalayas from Nepal to Hazára and Kashmir. This bird is also found at the foot of the hills, at Sahàranpur for instance, and is probably a resident in all parts of its range.

*Habits, &c.* The breeding-season is from March to May. *C. xanthoschista* makes a large globular nest of moss, grass, hair, and wool on a grassy bank at the foot of some small bush, and lays four white eggs which measure ·63 by ·5.

### 435. **Cryptolopha jerdoni.** *Brooks's Grey-headed Flycatcher-Warbler.*

Abrornis xanthoschistos (*Hodgs.*), *apud Jerd. B. I.* ii, p. 202; *Hume, N. & E.* p. 370; *Hume, Cat.* no. 572; *Scully, S. F.* viii, p. 309; *Hume, S. F.* xi, p. 225.
Abrornis jerdoni, *Brooks, Proc. A. S. B.* 1871, p. 248; *Hume, Cat.* no. 572 bis.

Abrornis albosuperciliaris, *Blyth, apud Hume & Henders. Lah. to Yark.* pl. xx, fig. 2.
Cryptolopha xanthoschista (*Hodgs.*), *Sharpe, Cat. B. M.* iv, p. 398 (part.); *Oates, B. B.* i, p. 272.
Cryptolopha jerdoni (*Brooks*), *Oates in Hume's N. & E.* 2nd ed. i, p. 271.

*The Grey-headed Warbler*, Jerd.

*Coloration.* Resembles *C. xanthoschista.* Differs in being much smaller; in having the forehead, crown, and nape dark blackish ashy, with a fairly distinct mesial coronal band of a lighter colour, and the mantle and back ashy brown.

Iris bright wood-brown, bill above horny brown; below yellow; legs plumbeous (*Cripps*).

Length about 4; tail 1·6; wing 2; tarsus ·7; bill from gape ·5.

*Distribution.* Throughout the Himalayas from Nepal to the head of the Assam valley. This Warbler has also been found in the Khási hills and Manipur, and, according to Blyth, in Arrakan.

*Habits, &c.* In Sikhim this species, according to Gammie, makes a domed nest of moss, lined with thistle-down, on the ground in May. The nest he found contained four white eggs measuring ·55 by ·47.

### 436. **Cryptolopha poliogenys.** *The Grey-cheeked Flycatcher-Warbler.*

Culicipeta poliogenys, *Blyth, J. A. S. B.* xvi, p. 441 (1847).
Abrornis poliogenys (*Blyth*), *Blyth, Cat.* p. 183; *Horsf. & M. Cat.* i, p. 340; *Jerd. B. I.* ii, p. 203; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 107; *Hume, Cat.* no. 575; *Hume & Cripps, S. F.* xi, p. 226.
Cryptolopha poliogenys (*Blyth*), *Sharpe, Cat. B. M.* iv, p. 403; *Oates in Hume's N. & E.* 2nd ed. i, p. 272.

*The Grey-cheeked Warbler*, Jerd.

*Coloration.* Forehead, crown, and nape dark blackish slaty, with only an obsolete indication of a paler median coronal band; a conspicuous white ring round the eye; sides of the head dark grey mottled with blackish ashy; chin and cheeks pale grey; whole lower plumage bright yellow; back, scapulars, rump, and upper tail-coverts olive-green; wings, coverts, and tail brown edged with olive-green; the greater coverts tipped with yellowish white, the three outer pairs of tail-feathers nearly entirely white on the inner webs.

Length about 4·5; tail 1·9; wing 2·2; tarsus ·7; bill from gape ·55.

*Distribution.* Sikhim; Dibrugarh in Assam, where this species is pretty common, and Cherra Poonjee in the Khási hills. Hodgson's specimens in the British Museum were probably obtained in Sikhim and not in Nepal. He does not figure this bird.

*Habits, &c.* Breeds in Sikhim in May.

### 437. **Cryptolopha castaneiceps.** *The Chestnut-headed Flycatcher-Warbler.*

Abrornis castaneoceps, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844); *Gray, Cat. Mamm. etc. Nepal*, pp. 66, 152 (1846); *Jerd. B. I.* ii, p. 205; *Blanf. J. A. S. B.* xli, pt. ii, p. 54; *Hume, N. & E.* p. 372; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 168, xlv, pt. ii, p. 80; *Hume, Cat.* no. 578; *Scully, S. F.* viii, p. 310; *Hume, S. F.* xi, p. 227.
Reguloides castaneiceps (*Hodgs.*), *Horsf. & M. Cat.* i, p. 344.
Cryptolopha castaneiceps (*Hodgs.*), *Sharpe, Cat. B. M.* iv, p. 404; *Oates in Hume's N. & E.* 2nd ed. i, p. 272.

*The Chestnut-headed Warbler*, Jerd.

*Coloration.* Forehead and crown bright chestnut, terminated on the nape by two black patches separated from each other by a white patch; a second patch of white outside each black one; a white ring round the eye; lores, sides of head, neck, and mantle slaty blue; chin, throat, and upper breast pale grey; middle of abdomen white; sides of body, vent, and under tail-coverts bright yellow; back and scapulars olive-green; rump bright yellow; wings, coverts, and tail dark brown edged with olive-green, the median and greater coverts broadly tipped yellow, the two outer pairs of tail-feathers white on the inner webs.

The young bird has the crown paler chestnut.

Upper mandible brownish black; lower mandible buff-horny or orange; iris dark brown; feet dingy brownish, the soles greenish yellow; claws dusky (*Scully*).

Length about 4; tail 1·7; wing 2; tarsus ·65; bill from gape ·45.

*Distribution.* Nepal and Sikhim. Godwin-Austen also observed this bird in the Daphla hills, in the Nága hills, and in Manipur, and I have seen specimens which were procured at Shillong.

*Habits, &c.* According to Hodgson this species breeds in Nepal from April to June, constructing a large oval nest of moss and roots on the ground. He does not describe the eggs.

### 438. **Cryptolopha cantator.** *Tickell's Flycatcher-Warbler.*

Motacilla cantator, *Tick. J. A. S. B.* ii, p. 576 (1833).
Abrornis cantator (*Tick.*), *Blyth, Cat.* p. 183; *Horsf. & M. Cat.* i, p. 338; *Hume, N. & E.* p. 370; *id. Cat.* no. 570; *id. S. F.* xi, p. 225.
Culicipeta cantator (*Tick.*), *Jerd. B. I.* ii, p. 200.
Abrornis chrysea, *Wald. in Blyth, B. Burm.* p. 106; *Hume, S. F.* v, p. 55; *Hume & Dav. S. F.* vi, p. 359; *Hume, Cat.* no. 576 bis.
Cryptolopha cantatrix, *Tick., Sharpe, Cat. B. M.* iv, p. 397.
Cryptolopha cantator (*Tick.*), *Oates, B. B.* i, p. 270; *id. in Hume's N. & E.* 2nd ed. i, p. 272.

*The Lesser Black-browed Warbler*, Jerd.

*Coloration.* Sides of the crown broadly black, enclosing an olive-yellow median coronal band; lores, a distinct supercilium, cheeks, ear-coverts, sides of neck, throat, and breast bright yellow; middle of the abdomen white, sides of the body pale grey; vent and under tail-coverts bright yellow; upper plumage olive-yellow; wings dark brown edged exteriorly with olive-yellow; wing-coverts olive-yellow, the greater series tipped with yellow; tail brown, the feathers edged with olive-yellow externally, and near the tip internally with pale yellow except on the two median pairs.

Maxilla brown; mandible pale straw-colour (*Wardlaw Ramsay*); legs fleshy-yellow; iris hazel (*Jerdon*).

Length about 4; tail 1·8; wing 2·2; tarsus ·65; bill from gape ·55.

*Distribution.* Found from Sikhim to Assam; also in Manipur and in the Karen hills to the east of Toungngoo. It is said to occur in Central India, and to be rare in Lower Bengal, but I have seen no specimen from the plains of India.

*Habits, &c.* It is doubtful whether the nest and egg said to belong to this species, and described in 'Nests and Eggs,' did really belong to it, and consequently I shall not describe them.

### 439. **Cryptolopha fulviventris.** *Austen's Flycatcher-Warbler.*

Reguloides fulvoventer, *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 167; *Hume, S. F.* iii, p. 398; *id. Cat.* no. 564 ter.

*Coloration.* A broad supercilium and a still broader coronal band greenish yellow; the interspaces blackish brown; lores yellowish; nape greenish ashy; back, rump, scapulars, and wing-coverts ashy grey, the greater coverts tipped with white; quills dark brown, the basal half of the outer webs edged with ashy, the terminal half with greenish yellow; upper tail-coverts bright green; tail greenish yellow, the inner webs edged with bright yellow as seen from below; sides of the head ashy and yellow mingled; chin tinged with yellowish; lower plumage greyish white; under tail-coverts very bright yellow; axillaries and under wing-coverts greyish white.

Bill above dark brown, below orange; legs and feet grey (*Godwin-Austen*).

Length about 4; tail 1·4; wing 2·1; tarsus ·7; bill from gape ·6.

*Distribution.* This well-marked and perfectly distinct species was discovered by Godwin-Austen in the low country of the Dhansiri in Assam. The description is taken from the type, which is a well-carbolized specimen.

## Genus **ABRORNIS**, Hodgs., 1844.

It is convenient to retain Hodgson's generic name *Abrornis* for the Flycatcher-Warblers with ten tail-feathers, inasmuch as he included one of these birds in it, when first introducing the name. Hodgson did not apparently fix on any type for the genus, but this course was not unusual in his day, and we may therefore, I think, retain the genus; and in so doing I shall make *Abrornis schisticeps* the type.

*Abrornis* resembles *Cryptolopha* in everything except the tail, which has ten feathers instead of twelve. It contains four Indian species. *Abrornis* lays spotted eggs, whereas *Cryptolopha* lays pure white eggs, and it is very remarkable that a difference in the number of tail-feathers should be accompanied by so marked a difference in the colour of the eggs.

### *Key to the Species.*

| | |
|---|---|
| *a.* Back and scapulars greenish or yellowish. | |
| *a′*. Chin and throat white ................ | *A. superciliaris,* p. 429. |
| *b′*. Chin and throat bright yellow.......... | *A. schisticeps,* p. 430. |
| *c′*. Chin and throat white, but with the bases of the feathers black, both colours exhibited in equal quantities ..... ........ | *A. albigularis,* p. 430. |
| *b.* Back and scapulars ashy grey ............ | *A. flavigularis,* p. 431. |

### 440. **Abrornis superciliaris.** *The Yellow-bellied Flycatcher-Warbler.*

Abrornis superciliaris, *Tick. J. A. S. B.* xxviii, p. 414 (1859); *Blanf. J. A. S. B.* xl, pt. ii, p. 164; *Hume, S. F.* iii, p. 140; *Hume & Dav. S. F.* vi, p. 359; *Anders. Yunnan Exped., Aves,* p. 626; *Hume, Cat.* no. 574; *Bingham, S. F.* ix, p. 188; *Hume, S. F.* xi, p. 226; *Oates in Hume's N. & E.* 2nd ed. i, p. 273.
Abrornis albigularis, *Jerd. & Blyth, P. Z. S.* 1861, p. 200.
Abrornis flaviventris, *Jerd. B. I.* ii, p. 203; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 168.
Abrornis griseifrons, *G. R. Gray, Hume, Cat.* no. 577 bis.
Cryptolopha superciliaris (*Tick.*), *Sharpe, Cat. B. M.* iv, p. 402; *Oates, B. B.* i, p. 273.

*The Yellow-bellied Warbler,* Jerd.

*Coloration.* Forehead and crown, as far back as the eyes, grey; remainder of the upper plumage oil-yellow; a distinct white supercilium from the bill to the nape; lores and behind the eye brown; cheeks and ear-coverts mingled grey and white; chin, throat, and upper breast white; remainder of lower plumage bright yellow; wings black edged with olive-green; coverts pale brown edged with olive-green; tail brown, edged exteriorly with olive-brown and interiorly with pale rufous.

Bill horn-colour, plumbeous at the base of the lower mandible; mouth yellow; eyelids grey; iris dark brown; legs and claws yellow.

Length rather more than 4; tail 1·8; wing 2·1; tarsus ·75; bill from gape ·55.

Specimens from the Salween in Burma have the whole crown grey.

*Distribution.* From Sikhim down to Tenasserim, but nowhere common. This bird has been recorded from the Gáro hills; Tippuk in the Dibrugarh district; the eastern hills of Manipur;

Bhámo; the Pegu hills; the Toungngoo hills; Karennee; the better-wooded portions of the plains of Pegu; the Yonzaleen, Salween, and Thoungyeen rivers, and Mergui. In the British Museum there is a specimen from Singapore labelled *Burnesia flaviventris*, to which bird the present species has a great resemblance in everything except the shape of the bill.

*Habits, &c.* Bingham found the nest in Tenasserim in March in a hole in a bamboo. The nest was made of fibres, and the eggs, three in number, were white speckled with pinkish claret-colour. They measured ·58 by ·43. Gammie found a similar nest in Sikhim in June, also with three eggs.

### 441. **Abrornis schisticeps.** *The Black-faced Flycatcher-Warbler.*

Culipeta schisticeps, *Hodgs., Gray, Cat. Mamm. etc. Nepal*, pp. 67, 153 (1846).
Abrornis schisticeps (*Hodgs.*), *Blyth, Cat.* p. 183; *Horsf. & M. Cat.* i, p. 339; *Jerd. B. I.* ii, p. 201; *Hume, Cat.* no. 571; *Oates in Hume's N. & E.* 2nd ed. i, p. 274.
Abrornis melanops, *Jerd. & Blyth, P. Z. S.* 1861, p. 200.
Cryptolopha schisticeps (*Hodgs.*), *Sharpe, Cat. B. M.* iv, p. 400.

*The Black-eared Warbler*, Jerd.

*Coloration.* Forehead and a broad supercilium bright yellow; crown, nape, upper back, ear-coverts, and sides of the neck slaty blue; lores, cheeks, and round the eye black; chin, throat, breast, and under tail-coverts bright yellow; abdomen and vent white; upper plumage and edges of the wing- and tail-feathers olive-green; the two outer pairs of tail-feathers dull white on the inner webs; no spots on the greater coverts.

Length about 4; tail 1·7; wing 1·9; tarsus ·65; bill from gape ·4.

*Distribution.* The Himalayas from Garhwál to Sikhim at moderate elevations.

*Habits, &c.* Breeds in Sikhim at the end of May, making a small nest of bamboo-leaves in a hole of a tree and laying five eggs. They are pinkish white, mottled and streaked with red, with a tendency to form a zone at the larger end. They measure ·57 by ·42.

### 442. **Abrornis albigularis.** *The White-throated Flycatcher-Warbler.*

Abrornis albogularis, *Hodgs., Moore, P. Z. S.* 1854, p. 106; *Horsf. & M. Cat.* i, p. 340; *Jerd. B. I.* ii, p. 204; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 271; *Blanf. J. A. S. B.* xli, pt. ii, p. 164; *Hume, Cat.* no. 577; *id. S. F.* xi, p. 226; *Oates in Hume's N. & E.* 2nd ed. i, p. 275.
Abrornis albiventris, *Jerd. & Blyth, P. Z. S.* 1861, p. 199.
Cryptolopha albigularis, *Hodgs., Sharpe, Cat. B. M.* iv, p. 405.

*The White-throated Warbler*, Jerd.

*Coloration.* Lores and the sides of the head pale chestnut; forehead, crown, and nape pale rufous; a broad black supercilium to the nape; upper plumage and wing-coverts olive-green; rump yellowish white; wings and tail dark brown edged with olive-green; chin and throat white, the feathers being black with white margins, and the black showing up when the feathers are disarranged; a band of bright yellow across the breast; under tail-coverts pale yellow; remainder of the lower plumage white.

Length about 3·5; tail 1·5; wing 1·75; tarsus ·6; bill from gape ·4.

*Distribution.* Nepal and Sikhim, extending to the Gáro hills and to the Eastern hills of Manipur, where this bird has been found at 5000 feet elevation.

*Habits, &c.* Breeds in Sikhim in July. Mandelli found in the cavity of a truncated bamboo about 4 feet from the ground a nest composed of bamboo-leaves and grass, and containing four eggs, which were pinky white, freckled and mottled with deep red. They measured ·56 by ·43.

### 443. **Abrornis flavigularis.** *The Yellow-throated Flycatcher-Warbler.*

Abrornis flavigularis, *Godw.-Aust. J. A. S. B.* xlvi, pt. ii, p. 44 (1877), xlvii, pt. ii, p. 19 (1878); *Hume, S. F.* vii, p. 147; *id. Cat.* no. 572 ter.

Cryptolopha flavigularis (*Godw.-Aust.*), *Sharpe, Cat. B. M.* iv, *Add.* p. 474.

*Coloration.* Forehead, crown, and nape dark ashy brown; lores blackish; a streak over the lores and eyes, continued to the nape, white, but very indistinct behind the eye; upper plumage ashy grey; wings dark brown edged with ashy olive; sides of the head mixed ashy and white; chin and upper throat bright yellow; remainder of lower plumage greyish white; edge of wing yellowish; the two outer tail-feathers brown on the outer web, white on the inner; the next pair brown, narrowly edged on the inner web with white; the other two pairs ashy brown.

Bill in the dry state dark brown above, yellow below; legs brown.

Length about 4; tail 1·5; wing 1·9; tarsus ·7; bill from gape ·5.

*Distribution.* Known only from Sadiya in Upper Assam, where the type was obtained by Mr. Ogle.

## Genus **TICKELLIA**, Jerd. & Blyth, 1861.

This genus, containing only one species, differs from *Abrornis* in having a much larger and blunter bill.

### 444. **Tickellia hodgsoni.** *The Broad-billed Flycatcher-Warbler.*

Abrornis hodgsoni, *Moore in Horsf. & M. Cat.* i, p. 412 (1854).
Tickellia hodgsoni (*Moore*), *Jerd. & Blyth, P. Z. S.* 1861, p. 199; *Jerd. B. I.* ii, p. 206; *Blanf. J. A. S. B.* xli, pt. ii, p. 164; *Hume, Cat.* no. 579.
Cryptolopha hodgsoni (*Moore*), *Sharpe, Cat. B. M.* iv, p. 406.
*The Broad-billed Warbler*, Jerd.

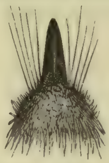


Fig. 133.—Bill of *T. hodgsoni.*

*Coloration.* Forehead and crown dark chestnut; upper plumage olive-green tinged with yellow on the rump; wing-coverts, quills, and tail dark brown edged with olive-green; the two outer pairs of tail-feathers white on the inner web; a pale grey supercilium; lores and sides of the head dark ashy; chin, throat, and breast grey; remainder of lower plumage bright yellow.

Bill horny, yellowish at base beneath; legs yellowish (*Jerdon*).

Length about 4; tail 1·8; wing 1·8; tarsus ·8; bill from gape ·55.

*Distribution.* Sikhim. Hodgson procured this species in Sikhim only, and not in Nepal, where there is no evidence of its occurrence.

## Genus **SCOTOCERCA**, Sundev., 1872.

The genus *Scotocerca* contains two species resembling each other closely, one of which is found in India and westward to Arabia, and one in Africa.

The spring moult of *S. inquieta*, if any, is probably only a very partial one; at all events it is unaccompanied by any change of colour or structure in the tail. The position of this genus among the Warblers requires confirmation.

In *Scotocerca* the nostrils are overhung by long hairs, a feature which separates it widely from *Franklinia* and *Prinia*, which genera it resembles in habits and appearance. The tail is, however, but little longer than the wing, and moreover very slightly graduated.

The birds of this genus inhabit desert regions, especially stony hills, and they appear to be restless and active.

### 445. **Scotocerca inquieta.** *The Streaked Scrub-Warbler.*

Malurus inquietus, *Cretzschm. in Rüpp. Atlas, Vögel*, p. 55, tab. 36, fig. 6 (1826).

Melizophilus striatus, *Brooks, Ibis,* 1872, p. 180; *Hume, S. F.* i, p. 200; *Blanford, Ibis,* 1874, p. 76.
Scotocerca inquieta (*Rüpp.*), *Hume, N. & E.* p. 357; *Blanf. East. Pers.* ii, p. 207, pl. xiii, fig. 2; *Hume, Cat.* no. 550 bis; *Barnes, S. F.* ix, pp. 217, 455; *Sharpe, Cat. B. M.* vii, p. 213; *Barnes, Birds Bom.* p. 222; *Oates in Hume's N. & E.* 2nd ed. i, p. 276.

*Coloration.* Upper plumage greyish brown; the forehead, crown, nape, and hind neck streaked with brown; wings brown, edged with greyish brown; tail very dark brown, nearly black, the outer feathers narrowly tipped with white; a long supercilium from the nostrils to the nape, the ear-coverts and cheeks pinkish fulvous; lores and behind the eye blackish; lower plumage whitish, the throat and breast striated with brown, and the sides of the neck and body suffused with pinkish fulvous.

Legs and feet pale yellow, dusky on joints and claws; bill dark brown, paler on the lower mandible (*Hume*).

Length rather more than 4·5; tail 2·1; wing 2; tarsus ·7; bill from gape ·5.

*Distribution.* A resident in the bare stony hills which run, in various broken ranges, from the Khyber Pass to the sea, on the west of the Indus river. The species extends westwards to Arabia.

*Habits, &c.* Constructs a globular nest made of fibres and coarse grasses, lined with finer grasses and feathers, in a bush near the ground. The breeding-season appears to be from February to April. The eggs, usually six in number, are white, spotted and speckled with light red, and measure ·62 by ·43.

## Genus **NEORNIS**, Hodgs., 1845.

The genus *Neornis*, as restricted, contains but one species, resembling *Horornis* in structure and *Acanthopneuste* in coloration. From the latter it may be recognized by its tail of ten feathers, and from the former by the hairs overhanging the nostrils.

*Neornis* inhabits bushes and grass, and is, generally speaking, a mountain-bird. Like the majority of the *Horornis*-group, it lays deep red eggs.

### 446. **Neornis flavolivaceus.** *The Aberrant Warbler.*

Neornis flavolivacea, *Hodgs., Blyth, J. A. S. B.* xiv, p. 590 (1845) *Blyth, Cat.* p. 144; *Horsf. & M. Cat.* i, p. 324; *Jerd. B. I.* ii, p. 188 *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 46; *Hume, S. F.* i, p. 494; *Brooks, J. A. S. B.* xliii, pt. ii, p. 246; *Hume, Cat.* no. 552; *id. S. F.* xi, p. 216; *Oates in Hume's N. & E.* 2nd ed. i, p. 277.
Neornis cacharensis, *Hodgs., Blyth, J. A. S. B.* xiv, p. 590 (1845).
Cettia flavolivacea (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 138.

*The Aberrant Tree-Warbler,* Jerd.

*Coloration.* Upper plumage dull green; wings and tail dark brown edged with dull green; lores and behind the eye dusky; a distinct yellow supercilium; sides of the head mixed dusky and yellow; the whole lower plumage dull fulvous-yellow, suffused with brown on the sides of the body; axillaries and under wing-coverts pale yellow.

Upper mandible brown, lower yellow; feet yellowish brown (*Cockburn*).

Length about 4·5; tail 2·2; wing 2·2; tarsus ·9; bill from gape ·6.

*Distribution.* The Himalayas from the Sutlej valley to Sikhim at elevations of from 6000 to 10,000 feet. In Hume's list of the birds of Pegu (S. F. iii, p. 139) this species was doubtfully recorded. The specimen I sent to Hume was a very bad one, but I have since identified it with *Herbivocula schwarzi.* Hume records the present species from the Khási hills, and it is not yet known to occur further south.

*Habits, &c.* Breeds in Sikhim from May to July at elevations of from 3500 to 6000 feet, constructing a globular nest, made of bamboo-leaves and grass, in bushes, and laying three eggs; these measure ·66 by ·5; their colour is a deep chocolate-purple.

## Genus **HORORNIS**, Hodgs., 1845.

The genus *Horornis* contains seven Indian birds of dull coloration, and which are for the most part very little known. With one exception they are resident species on the higher hills. The one exception is *H. canturiens*, which appears to be a winter visitor from China, and the position of which is somewhat doubtful. For the present I place it in this genus.

*Horornis* has a bill about half as long as the head; the rictal bristles are strong, and there are some supplementary hairs in front of them. There are, however, no long hairs over the nostrils, the shafts of the frontal feathers being merely lengthened. The wing is very blunt and short, the first primary being large, and the second and third graduated, the fourth hardly reaching to the tip of the wing. The tarsus in all is very strong, and the hind toe and claw are especially so. The tail is about the length of the wing and not greatly graduated, the outer feathers being about four fifths the length of the tail.

### *Key to the Species.*

*a.* Upper plumage entirely of one colour.
  *a′.* Upper plumage tinged with rufous.
    *a″.* Under wing-coverts and axillaries distinctly yellow.
      *a‴.* Lower plumage yellowish; tail about 1·8 . . . . . . . . . . *H. brunnescens*, p. 435.
      *b‴.* Lower plumage buffish; tail about 2·1 . . . . . . . . . . *H. fortipes*, p. 435.

*b*″. Under wing-coverts and axillaries ochraceous brown like the lower plumage . . . . . . . . . . *H. albiventris*, p. 436.
*b*′. Upper plumage tinged with olivaceous.
*c*″. Flanks and under tail-coverts fulvous . . *H. pallidus*, p. 436.
*d*″. Flanks and under tail-coverts pale brown . . . . . . . . . . *H. pallidipes*, p. 437.
*b*. Crown differently coloured from remainder of upper plumage.
*c*′. Crown of head bright chestnut-brown; wing about 2·4 . . . . . . . . . . *H. major*, p. 438.
*d*′. Crown of head merely tinged with rufous; wing about 3 . . . . . . . . . . *H. canturiens*, p. 438.

### 447. **Horornis brunnescens.** *Hume's Bush-Warbler.*

Horeites brunnescens, *Hume, Ibis*, 1872, p. 109; *id. S. F.* iii, p. 410, iv, p. 497; *id. Cat.* no. 527 ter.
Horornis brunnescens (*Hume*), *Brooks, S. F.* viii, p. 380.
Cettia fortipes (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 136 (part.).

*Coloration.* Upper plumage bright rufous-brown; the edges of the wings and tail brighter; lores and behind the eye dark brown; a very distinct pale buff supercilium; lower plumage pale buff, turning to yellow on the lower part of the abdomen and the sides of the body; axillaries and under wing-coverts pale yellow.

In the dry skin the bill is dark brown, with the base of the lower mandible pale; legs fleshy brown.

Length about 4; tail 1·8; wing 2; tarsus ·8; bill from gape ·5.

Among Hodgson's birds in the British Museum are three specimens of this species, but bearing the same number as *H. fortipes*, viz. 928.

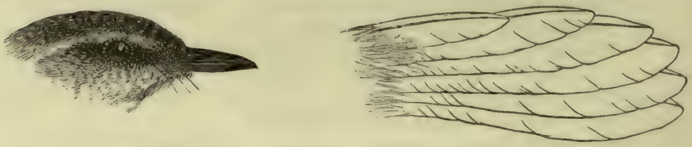
*Distribution.* Sikhim and probably Nepal.

### 448. **Horornis fortipes.** *The Strong-footed Bush-Warbler.*

Horornis fortipes, *Hodgs. P. Z. S.* 1845, p. 31; *Jerd. B. I.* ii, p. 162; *Brooks. S. F.* viii, p. 475, x, p. 170; *Oates in Hume's N. & E.* 2nd ed. i, p. 279.
Drymoica brevicaudata, *Blyth, J. A. S. B.* xvi, p. 459 (1847).
Neornis (Horornis) assimilis, *Gray, Cat. Mamm. etc. Nepal*, ed. 2, p. 30 (1863).
Neornis assimilis (*Hodgs.*), *Blyth, Ibis*, 1867, p. 22; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 167; *Wald. in Blyth, Birds Burm.* p. 105; *Hume & Dav. S. F.* vi, p. 351; *Hume, Cat.* no. 552 bis; *id. S. F.* xi, p. 217.
Dumeticola fortipes (*Hodgs.*), *Hume, N. & E.* p. 329.
Neornis flavolivacea (*Hodgs.*), *Hume, N. & E.* p. 360.
Neornis brevicaudatus (*Blyth*), *Anders. Yunnan Exped., Aves*, p. 623.
Schœnicola fortipes (*Hodgs.*), *Hume, Cat.* no. 526; *id. S. F.* xi, p. 206.
Cettia fortipes (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 136.
Horeites fortipes (*Hodgs.*), *Oates, B. B.* i, p. 121.

*The Strong-footed Hill-Warbler*, Jerd.

*Coloration.* The whole upper plumage olive-brown tinged with rufous; wings and tail dark brown, edged with rufous; an indistinct eye-streak brownish yellow; lores and behind the eye dark brown; sides of the head and the lower plumage buffish brown, paler along the middle of the latter; axillaries and under wing-coverts pale yellow.



Figs. 134, 135.—Head and wing of *H. fortipes.*

Bill pale brown; iris hazel; legs wood-brown (*Cockburn*).

Length about 4·5; tail 2·1; wing 2·2; tarsus ·9; bill from gape ·6.

*Distribution.* Nepal, Sikhim, the Bhutan Doars, and Upper Assam, extending across the valley to the Khási and Nága hills, and further south to the hills east of Bhámo and to Karennee.

*Habits, &c.* Breeds in Nepal and Sikhim from May to July, constructing a cup-shaped nest, composed of grass and lined with feathers, in low brushwood. The eggs, four in number, are a uniform chocolate-colour, and measure ·67 by ·51.

### 449. **Horornis albiventris.** *The White-bellied Bush-Warbler.*

Niornis albiventer, *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 199 (1876); *Hume, S. F.* v, p. 55; *id. Cat.* no. 552 ter; *id. S. F.* xi, p. 217.

*Coloration.* The whole upper plumage uniform umber-brown tinged with rufous, as are also the visible portions of the wings and tail; a short supercilium and the feathers round the eye grey; ear-coverts umber-brown; chin dull white, each feather tipped with brown; throat purer white, with a subterminal dusky speck on each feather; middle of the abdomen whitish; remainder of the lower plumage, axillaries, and under wing-coverts rich ochraceous brown.

Bill horny-brown above, pale beneath.

Length nearly 5; tail 2·2; wing 2·1; tarsus ·85; middle toe and claw ·8.

*Distribution.* This well-marked form occurs in the Manipur valley, where the type-specimen was procured at Sengmai by Mr. W. Robert.

### 450. **Horornis pallidus.** *The Pale Bush-Warbler.*

Horeites pallidus, *Brooks, J. A. S. B.* xli, pt. ii, p. 78 (1872); *Hume, N. & E.* p. 330; *id. Cat.* no. 527 bis; *id. S. F.* xi, p. 206.
Horornis pallidus (*Brooks*), *Brooks, S. F.* iii, p. 241; *Oates in Hume's N. & E.* 2nd ed. i, p. 280.

*Coloration.* Upper plumage dull olive-brown, brighter and tinged with rufous on the margins of the wing- and tail-feathers; lores and behind the eye dark brown; a distinct supercilium pale buff; sides of the head mixed brown and grey; lower plumage greyish white; the sides of the body, vent, and under tail-coverts fulvous.

Iris hazel-brown; bill light brown; lower mandible paler except the tip; legs, toes, and claws light fleshy-brown (*Brooks*).

Length rather more than 5; tail 2·2; wing 2·2; tarsus ·9; bill from gape ·5.

*Distribution.* Throughout Kashmir and Hazára, and extending along the Himalayas as far as the Bhágirathi valley, Garhwál. Hume records this species from Shillong, but probably by an oversight, for this is a most unlikely locality, and the statement is not supported by any specimen in the Hume Collection.

*Habits, &c.* Brooks states that this bird's song is a strange prolonged whistle with a sudden turn at the end, the second strain consisting of five or six notes in a different key; after a short silence the long whistle is begun again. He describes a nest which he found in Kashmir in May as being globular and composed of coarse dry grass, lined profusely with feathers; it was placed on a sloping bank. An egg it contained was a dull purple-brown, and measured ·64 by ·49.

### 451. **Horornis pallidipes.** *Blanford's Bush-Warbler.*

Phylloscopus pallidipes, *Blanf. J. A. S. B.* xli, pt. ii, p. 162, pl. vii, fig. 1 (1872); *Brooks, J. A. S. B.* xliii, pt. ii, p. 246.
Horeites sericea, *Wald. in Blyth, Birds Burm.* p. 119 (1875); *Tweedd. Ibis*, 1877, p. 487; *Hume, S. F.* v, p. 57.
Horeites pallidipes (*Blanf.*), *Hume & Dav. S. F.* vi, p. 344; *Hume, Cat.* no. 527 quat.; *Oates, B. B.* i. p. 122.
Cettia pallidipes (*Blanf.*), *Seebohm, Cat. B. M.* v, p. 139.
Horornis pallidipes (*Blanf.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 281.

*Coloration.* The whole upper plumage olive-brown, tinged with rufous on the rump and upper tail-coverts; wings and tail dark brown, edged with olive-brown; lores and behind the eye dark brown; a distinct greyish-white supercilium; lower plumage whitish, suffused with brown on the sides of the neck, breast, body, and under tail-coverts.

Iris dull brown; bill yellow; legs fleshy-white (*Wardlaw Ramsay*).

Length about 4·5; tail 1·8; wing 2; tarsus ·8; bill from gape ·6.

*Distribution.* Sikhim and the Bhutan Doars, extending to the hill-ranges east of Toungngoo and to the Salween valley in Tenasserim.

*Habits, &c.* Breeds in Sikhim in May and June, laying four eggs in a cup-shaped nest made of grass, and built on the ground. The eggs do not appear to be known.

### 452. **Horornis major.** *The Large Bush-Warbler.*

Horeites major, *Hodgs., Moore, P. Z. S.* 1854, p. 105; *Horsf. & M. Cat.* i, p. 323; *Jerd. B. I.* ii, p. 164; *Blanf. J. A S. B.* xli, pt. ii, p. 161; *Hume, N. & E.* p. 331; *id. Cat.* no. 529.
Cettia major (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 145, pl. vii.
Horornis major (*Hodgs.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 281.

*The Large Hill-Warbler*, Jerd.

*Coloration.* Forehead, crown, and nape chestnut-brown; upper plumage and visible portions of wings and tail olive-brown; the two latter parts tinged with rufous; lores and behind the eye blackish; a pale rufous supercilium; ear-coverts rufous-ashy; chin, throat, and breast greyish white; centre of abdomen whitish; sides of the body, vent, thighs, and under tail-coverts dull ochraceous-brown.

In the dry state, the upper mandible and tip of the lower are dark brown, the remainder of the bill yellowish; legs fleshy brown.

Length about 5; tail 2; wing 2·4; tarsus ·9; bill from gape ·6.

*Distribution.* Nepal and Sikhim.

*Habits, &c.* Breeds in Sikhim at high altitudes in July, constructing a cup-shaped nest, composed of fern-roots, hair, wool, moss, &c., in a low bush.

The eggs, which appear to be three in number, are, unlike those of most species of *Horornis*, of a white colour, sprinkled over the larger half of the egg with minute specks of brownish red. They measure ·7 by ·54.

### 453. **Horornis canturiens.** *The Chinese Bush-Warbler.*

Arundinax canturians, *Swinhoe, Ibis,* 1860, p. 52.
Cettia canturiens (*Swinh.*), *Seebohm, Cat. B. M.* v, p. 141.
Homochlamys canturiens (*Swinh.*), *Hume, S. F.* xi, p. 202.

*Coloration.* In winter the whole upper plumage and the visible portions of the wings and tail are russet-brown, brightest on the head; sides of the neck browner; lores and a band behind the eye dusky; a broad, but not very distinct, supercilium buffish white; ear-coverts mixed rufous and whitish; chin, throat, and middle of abdomen white; breast, sides of the body, and the under tail-coverts buff; thighs greyish brown. In summer the upper plumage is olive-brown, and the lower is paler; but there is considerable variation in these respects.

Bill wood-brown, with the edge of the upper and the whole of the lower mandible pale flesh-colour; inside of mouth chrome-yellow; iris hazel; legs pale brownish flesh-colour; claws wood-brown, paling on the soles (*Swinhoe*).

Length about 6·5; tail 3; wing 3; tarsus 1·1; bill from gape ·8.

*Distribution.* A single specimen of this species, as recorded by

Hume, was obtained at Lakhipur in Cachar. This specimen, now in the Hume Collection, is identical with Chinese birds. The proper habitat of the species is China.

### Genus **PHYLLERGATES**, Sharpe, 1883.

The genus *Phyllergates* contains one species, which all Indian writers have hitherto placed with *Orthotomus*. Sharpe has separated the present genus from *Orthotomus* on account of its differently-shaped tail and bill, but he has kept it in the section of the *Cisticolæ* with 12 tail-feathers. This is of course wrong, as *Phyllergates* has only ten rectrices.

This genus differs from *Orthotomus* in so many characters that there is some doubt whether it is as closely allied to that generic type as it is to *Abrornis* and *Tickellia*, with which two genera it has many characters in common, such as the broad blunt bill and the slightly graduated tail of 10 feathers. It is, moreover, so similar to *T. hodgsoni* in coloration that at first sight they appear inseparable. Jerdon's account of the nest of *P. coronatus* is very likely to be wrong, as he did not find it himself nor did he pay any great attention to nidification, and I should not be surprised to learn hereafter that the Golden-headed Warbler, like *Abrornis*, constructed its nest in a hole of a tree.

In this genus the spring moult appears to have no effect on the colour of the plumage, and certainly none on the shape and length of the tail.

### 454. **Phyllergates coronatus.** *The Golden-headed Warbler.*

Orthotomus coronatus, *Jerd. & Blyth, P. Z. S.* 1861, p. 200; *Jerd. B. I.* ii, p. 168; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 107; *Hume, N. & E.* p. 334; *Wald. in Blyth's Birds Burm.* p. 121; *Sharpe, Ibis,* 1877, p. 115; *Hume & Dav. S. F.* vi, p. 346; *Hume, Cat.* no. 531; *id. S. F.* xi, p. 207.

Phyllobates coronatus (*Jerd. & Blyth*), *Oates, B. B.* i, p. 110.

Phyllergates coronatus (*Jerd. & Blyth*), *Sharpe, Cat. B. M.* vii, p. 230; *Oates in Hume's N. & E.* 2nd ed. i, p. 282.

*The Golden-headed Tailor-bird*, Jerd.

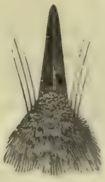


Fig. 136.—Bill of *P. coronatus.*

*Coloration.* Forehead and crown chestnut; a short supercilium yellow, turning to pale grey over the ear-coverts; lores and the upper part of the ear-coverts dark ashy brown; lower part of the ear-coverts silvery white; nape, sides, and back of the neck ashy; back, rump, upper tail-coverts, and wing-coverts yellowish green; wings brown, edged with yellowish green; tail brown, the inner webs of the two outer pairs of feathers white; chin, throat, and breast pale ashy white; remainder of the lower plumage bright yellow.

Legs and feet yellowish fleshy; upper mandible, tips and edges of lower mandible along commissure black; rest of bill yellowish fleshy; iris brown (*Hume & Davison*).

Length about 4·5; tail 1·7; wing 1·8; tarsus ·75; bill from gape ·7.

*Distribution.* Sikhim and Upper Assam, in which latter province this species has been obtained at Dibrugarh. It has also been procured at Cherra Poonjee and on the Limatol range of the western hills of Manipur; on the Tsankoo hills at 3000 feet near Karennee, and on Muleyit mountain in Tenasserim.

*Habits, &c.* A nest brought to Jerdon as that of this bird was similar to the ordinary nest of a Tailor-bird, but not so carefully made, the leaves being loosely attached and with fewer stitches. The eggs, two in number, were white with rusty spots.

## Genus **HOREITES**, Hodgs., 1845.

This genus, which contains but one species, differs from *Horornis* in having a much more graduated tail, and the frontal feathers short and smooth, with no supplementary bristles in front of the rictus.

It inhabits the Himalayas at great altitudes.

### 455. **Horeites brunneifrons.** *The Rufous-capped Bush-Warbler.*

Orthotomus (Prinia) brunnifrons, *Hodgs. P. Z. S.* 1845, p. 29.
Orthotomus (Horeites) pollicaris, *Hodgs. P. Z. S.* 1845, p. 30.
Orthotomus (Horeites) schistilatus, *Hodgs. P. Z. S.* 1845, p. 30.
Horeites brunnifrons, *Hodgs., Blyth, J. A. S. B.* xiv, p. 585 (1845); *Horsf. & M. Cat.* i, p. 323; *Jerd. B. I.* ii, p. 163; *Blanf. J. A. S. B.* xli, pt. ii, p. 55; *Hume Cat.* no. 527; *Oates in Hume's N. & E.* 2nd ed. i, p. 282.
Horeites pollicaris, *Blyth, J. A. S. B.* xiv, p. 585 (1845); *Horsf. & M. Cat.* i, p. 322; *Jerd. B. I.* ii, p. 163; *Hume, Cat.* no. 528.
Nivicola schistilata, *Hodgs., Blyth, J. A. S. B.* xiv, p. 586 (1845).
Horeites schistilatus, *Horsf. & M. Cat.* i, p. 323.
Cettia brunneifrons (*Hodgs.*), *Seebohm, Cat. B. M.* v, p. 143.

*The Rufous-capped Hill-Warbler*, Jerd.; *The Strong-clawed Hill-Warbler*, Jerd.; *Liklik-pho*, Lepch.

*Coloration.* Forehead, crown, and nape chestnut-brown; remainder of upper plumage olive-brown tinged with rufous; wings and tail dark brown, edged with rufous; lores and behind the eye blackish; a long distinct supercilium buffy yellow; sides of the head ashy brown; chin, throat, middle of breast, and abdomen dull white; sides of breast and abdomen ashy grey, shading off into ochraceous on the flanks, thighs, and under tail-coverts; under wing-coverts and axillaries ashy white.

Young birds have the crown concolorous with the back and the lower plumage uniform deep ochraceous-brown, in which state they are Hodgson's *H. pollicaris*.

Back and outsides of tarsi and toes dusky, insides and front fleshy white; claws white tinged dusky; iris very dark brown; upper mandible dull black; gape and lower mandible to angle of the gonys fleshy yellow; remainder of lower mandible dusky brown (*Hume*).

Length about 4·5; tail 1·8; wing 1·8; tarsus ·7; bill from gape ·5.

*Distribution.* The Himalayas at considerable altitudes, from the Pir Panjal in Kashmir to Sikhim.

*Habits, &c.* Blanford observed this bird in Sikhim between 10,000 and 12,000 feet of elevation, and noticed that its habits were similar to those of the Wrens; it was seen hunting over mossy rocks and diving into hollows between them. The nest does not appear to be known, but the eggs are described as being stone-coloured, with a broad dense zone of dull brownish purple at the large end; they measure ·65 by ·48.

## Genus **CETTIA**, Bonap., 1838.

The genus *Cettia* contains one Indian species, which differs from its European ally in characters sufficiently marked to constitute it a distinct and easily recognizable species.

It is probably only a winter visitor to Sind, but the evidence on this point is imperfect. It is at the best a bird of very limited migration. It frequents reeds and swampy vegetation and is a very great skulker.

In this genus the bill is about half the length of the head, slender and pointed; the frontal feathers are short and smooth, and there are no supplementary bristles or hairs in front of the rictus. The wing is short and rounded. The tail is very moderately graduated.

### 456. **Cettia orientalis.** *The Eastern Bush-Warbler.*

Cettia (Potamodus) orientalis, *Tristram, Ibis*, 1867, p. 79.
Cettia sericea (*Natt.*), *Hume, S. F.* i, p. 192 (1873); *Brooks, Ibis*, 1884, p. 237.
Cettia cettioides, *Hume, S. F.* i, p. 194 (1873).
Cettia albiventris, *Severtz. Turkest. Jevotn.* pp. 66, 131 (1873); *id. S. F.* iii, p. 424.
Cettia scalenura, *Severtz. Turkest. Jevotn.* pp. 66, 131 (1873); *id. S. F.* iii, p. 424.
Cettia stoliczkæ, *Hume, S. F.* ii, p. 520 (1874), iii, p. 415 (1875).
Cettia cetti, *apud Hume, S. F.* iv, p. 41.
Bradyptetus cetti (*Marm.*), *Hume, Cat.* no. 518 ter.
Cettia cetti (*Marm.*), *Seebohm, Cat. B. M.* v, p. 135 (part.).

*Coloration.* Upper plumage reddish brown; wings and tail edged with the same; a short supercilium and round the eye fulvous white; lores dusky; chin, throat, breast, and abdomen white; remainder of the lower plumage greyish brown; the under tail-coverts tipped with whitish.

Legs and feet brown, dark on the joints and tips of claws; bill dark horny brown, paler on the lower mandible; iris brown (*Hume*).

Length about 6; tail 2·5 to 2·9; wing 2·4 to 2·9; tarsus ·85; bill from gape ·7.

This species differs from the *Cettia cetti* of Europe in being conspicuously paler above and in being much larger.

*Distribution.* Sind only, in India. Barnes states that Hume obtained the bird in the mangrove-swamps of the Karáchi harbour, but I cannot find that Hume ever noted it from this locality. All the specimens that I have examined in his collection were procured at or near Larkhána, as appears from the labels attached to the birds. *C. orientalis* ranges northwards to Turkestan, and westwards to Palestine.

## Genus **UROSPHENA**, Swinhoe, 1877.

The genus *Urosphena* contains one Indian Warbler, instantly recognizable by its short tail, which is only half as long as the wing, and by the graduation of the tail-feathers, which causes the tail, when expanded, to be fan-shaped, quite as much so as in *Cisticola*.

This Reed-Warbler, about the habits of which very little is known, is a very rare visitor to Burma.

### 457. **Urosphena squamiceps.** *Swinhoe's Reed-Warbler.*

Tribura squameiceps, *Swinhoe, P. Z. S.* 1863, p. 292.
Urosphena squamiceps (*Swinh.*), *Swinhoe, Ibis,* 1877, p. 205, pl. iv; *Hume & Dav. S. F.* vi, p. 343; *Hume, Cat.* no. 522 ter; *Oates, B. B.* i, p. 100.
Cettia squamiceps (*Swinh.*), *Seebohm, Cat. B. M.* v, p. 142.

*Coloration.* The whole upper plumage rich hair-brown tinged with chocolate; the feathers of the head rounded; the outer webs of the quills brighter; a distinct supercilium from the nostril to the nape buffy white; lores and a streak between the supercilium and the ear-coverts very dark brown; ear-coverts and cheeks buffy white, each feather tipped with brown; the whole lower plumage pale buffish white, turning to almost pure white on the chin, throat, and middle of abdomen.

Legs, feet, and claws fleshy-white; two thirds of lower mandible fleshy-white; rest of lower mandible and the upper one horny-brown; iris dark brown (*Hume & Davison*).

Length about 4; tail 1·2; wing 2·1; tarsus ·7; bill from gape ·65.

*Distribution.* This rare Warbler has been once procured at Bankasún, in the south of Tenasserim, by Davison. It is probably only a winter visitor to Burma. It is found in South China and Formosa in the winter, and in North-eastern Asia in the summer. Nothing is known of its habits.

## Genus **SUYA**, Hodgs., 1836.

The genus *Suya* comprises four Indian species, which are chiefly found on the hills and more rarely in the plains. They have greatly developed tails, which are always twice the length of the wing or even longer. The spring moult is very complete, attended in the case of three species with a marked change of colour from that of the winter, and in the case of one with a conspicuous alteration in the length of the tail. One species undergoes no change of colour at the moults.

The Hill-Warblers are poor fliers and are resident species. They frequent low brushwood, but sometimes resort to the tops of low trees. They are closely allied to *Prinia* both in appearance and habits, but they have longer tails. They have two strong rictal bristles on each side, but no hairs in front of them; the whole of the feathers of the forehead being very firm, short, and smooth. The tail is greatly graduated, the outer feather either reaching to the middle of the tail or falling short of it.

The Hill-Warblers construct globular nests of grass in bushes near the ground, and lay spotted eggs.

### *Key to the Species.*

- *a.* Chin and throat white or fulvous white.
  - *a'*. Upper plumage very distinctly streaked.
    - *a''*. Sides of chin and throat and the whole breast irregularly barred . . . . . . . . . . . . . . *S. crinigera* hiem., [p. 444.
    - *b''*. Sides of chin and throat and the whole breast unbarred . . . . . . . . . . . . . . . . . . . . *S. crinigera* æstiv., [p. 444.
  - *b'*. Upper plumage plain or obsoletely streaked.
    - *c''*. Crown of same colour as back.
      - *a'''*. Upper plumage olive-brown . . . . . . . . *S. atrigularis* hiem., [p. 445.
      - *b'''*. Upper plumage ferruginous-brown . . *S. khasiana* hiem., [p. 446.
    - *d''*. Crown of a darker colour than the back . *S. superciliaris*, [p. 446.
- *b.* Chin and throat deep black.
  - *c'*. Upper plumage dark olive-brown; the head tinged with ashy; black of throat continued over the breast and upper abdomen . . . . . . *S. atrigularis* æstiv., [p. 445.
  - *d'*. Upper plumage ferruginous brown; black confined to chin and throat . . . . . . . . . . . . *S. khasiana* *, æstiv., [p. 446.

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* I am unable to identify *Suya gangetica*, Blyth, Ibis, 1867, p. 23.

### 458. **Suya crinigera.** *The Brown Hill-Warbler.*

Suya criniger, *Hodgs. As. Res.* xix, p. 183 (1836); *Horsf. & M. Cat.* i, p. 325; *Jerd. B. I.* ii, p. 183; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 45; *Godw.-Aust. J. A. S. B.* xl, pt. ii, p. 142; *Cock & Marshall, S. F.* i, p. 355.

Decura (Suya) fuliginosa, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844).

Suya fuliginosa, *Horsf. & M. Cat.* i, p. 326; *Jerd. B. I.* ii, p. 183; *Hume, N. & E.* p. 355; *id. Cat.* no. 548; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 167.

Drymoica criniger (*Hodgs.*), *Blyth, Cat.* p. 142.

Blanfordius striatulus, *Hume, S. F.* i, pp. 195, 300; *id. Cat.* no. 549 quint.; *Barnes, Birds Bom.* p. 221.

Suya crinigera (*Hodgs.*), *Hume, N. & E.* p. 353; *id. S. F.* iii, p. 138; *Brooks, S. F.* iii. p. 243; *Anders. Yunnan Exped., Aves,* p. 642; *Hume, S. F.* vii, p. 1; *id. Cat.* no. 547; *Scully, S. F.* viii, p. 305; *Oates, S. F.* x, p. 221; *id. B. B.* i, p. 123; *Sharpe, Cat. B. M.* vii, p. 177; *Hume, S. F.* xi, p. 215; *Oates in Hume's N. & E.* 2nd ed. i, p. 282.

Suya obscura, *Hume, S. F.* ii, p. 507; *Ball, S. F.* iii, p. 207; *Hume, S. F.* vii, p. 2.

*The Brown Mountain Wren-Warbler*; *The Dusky Hill-Warbler*, Jerd.; *Suya*, Nepal; *Dang prim-pho*, Lepch.; *Shik-Shillik*, Bhot.

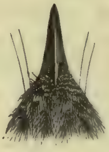

Fig. 137.—Bill of *S. crinigera.*

*Coloration.* In winter the upper plumage is fulvous-brown, streaked with black, except on the rump and upper tail-coverts; wing-coverts brown, edged with rufous; quills margined with ferruginous; tail rufous-brown, faintly cross-rayed, with pale tips and subterminal dark spots; a ring round the eye rufescent; lores yellowish; sides of the head mingled brown and fulvous; middle of chin and throat plain fulvous-white; sides of the chin and throat and the whole breast fulvous, irregularly and narrowly cross-barred with black, the bars interrupted, and frequently being only a series of arrowhead-shaped marks; middle of abdomen whitish; remainder of lower plumage fulvous.

In summer the upper plumage and wing-coverts are dark brown, the feathers edged with olivaceous; lores and round the eye dark brown or blackish; cheeks and the whole lower plumage uniform pale fulvous, the dark bases of the feathers showing through, more or less, on the breast; wings and tail as in winter.

The young have the upper plumage, the tail, and the margins of the quills rich tawny brown, with some black streaks on the head; the lower plumage fulvous, tinged with yellow in places.

The bill in summer is black, in winter brown above, dark fleshy below; at all seasons the legs and feet are fleshy pink, claws brown, iris orange.

In winter the length is about 7·5; tail 4·3; wing 2·3; tarsus ·9; bill from gape ·6. In summer the total length and the length of the tail are reduced by nearly one inch.

The numerous specimens of *Blanfordius striatulus* that I have examined from Sind are in my opinion inseparable from *Suya crinigera* in winter plumage. It is true that Hume states that his type specimen had twelve tail-feathers; but there must be some mistake about this, as all the undoubted specimens of *Blanfordius striatulus* since obtained by Blanford have ten tail-feathers. Sharpe has already made the same identification in his Catalogue.

*Distribution.* Throughout the Himalayas from Bhutan to Kashmir and the borders of Afghanistan, and along the hill-ranges to the west of the Indus down to Karáchi; Assam and the hill-ranges of Eastern Bengal, through Burma down to Thayetmyo. This bird occurs in the Himalayas up to about 6000 feet elevation, and although essentially a hill-bird, it is also found in the plains. It extends to China.

*Habits, &c.* Breeds from May to July, constructing a nest, shaped like a deep cup, of grass-down, bound together by grass, in a bush not far from the ground. The eggs, as many as seven sometimes, are white, speckled with red, and measure ·69 by ·52.

### 459. **Suya atrigularis.** *The Black-throated Hill-Warbler.*

Suya atrogularis, *Moore, P. Z. S.* 1854, p. 77; *Horsf. & M. Cat.* i, p. 326; *Jerd. B. I.* ii, p. 184; *Hume, N. & E.* p. 355; *id. S. F.* vii, p. 3; *id. Cat.* no. 549; *Sharpe, Cat. B. M.* vii, p. 180; *Oates in Hume's N. & E.* 2nd ed. i, p. 285.

*Prim-pho,* Lepch.; *Shik-shillik,* Bhut.

*Coloration.* In winter the upper plumage is dark olive-brown, all the feathers with obscure darker centres or streaks; wings and tail brown, broadly edged with fulvous olive-brown, and the tail-feathers with rufous tips; a more or less distinct white supercilium from the nostril to the end of the ear-coverts; the lores and a band behind the eye dark brown; ear-coverts mixed fulvous and brown; cheeks and lower plumage pale fulvous, turning to ochraceous on the sides of the body and the under tail-coverts; the cheeks delicately barred with black, and the breast indistinctly striped with the same.

In summer the crown and nape are much darker, and contrast with the upper plumage; the supercilium is wanting; the sides of the head are ashy; there is a distinct white cheek-stripe; the chin, throat, breast, and upper abdomen are deep black, the feathers of the upper abdomen being centred and tipped with white; the other parts of the plumage are the same as in winter.

The colour of the soft parts of this bird have not been recorded.

Length about 7; tail 4·5; wing 2·1; tarsus ·8; bill from gape ·65. There appears to be no marked difference in the length of the tail in the two seasons, and probably it is not moulted in spring.

*Distribution.* Sikhim. Hodgson procured this bird, but probably in Sikhim, and not in Nepal. Jerdon quotes it from the Khási hills; but he, no doubt, did not distinguish it from *S. khasiana.* Hume, in his 'Rough Draft of Nests and Eggs,' states that it breeds in Kumaun, and probably he is right, but there is not a single specimen in his collection *now* from that province, and I have seen no specimens from any part of India but Sikhim.

*Habits, &c.* Breeds from 4000 to 6000 feet in May and June, and probably also in April and July. The nest, an egg-shaped structure made of grass and a little moss, is placed in a low bush or clump of grass. The eggs, four or five in number, are greyish green, marked with purple, and measure ·68 by ·5.

### 460. **Suya khasiana.** *Austen's Hill-Warbler.*

Suya atrogularis, *Moore, apud Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 107.

Suya khasiana, *Godw.-Aust. A. M. N. H.* (4), xviii, p. 412 (1876); *Hume, S. F.* v, p. 59; *id. S. F.* vii, p. 3; *id. Cat.* no. 549 bis; *Sharpe, Cat. B. M.* vii, p. 181; *Hume, S. F.* xi, p. 216.

*Coloration.* In winter the whole upper plumage is a rich ferruginous brown, brighter on the forehead and crown; tail brown, suffused with ferruginous, tipped pale, and with a subterminal dark patch on each feather; a streak from the nostril over the eye to the end of the ear-coverts and the feathers on the eyelids ashy white; lores dusky; cheeks white, delicately barred with brown; chin, middle of throat, of breast, and of abdomen pure white; ear-coverts, sides of the throat, neck, breast, and body, with the under tail-coverts, ochraceous.

In summer the upper plumage, wings, and tail are the same as in winter; the lores and supercilium are blackish, with some whitish specks; ear-coverts and round the eye slaty; a broad and conspicuous cheek-stripe white; chin and throat black; the feathers on the upper breast white, with black margins; middle of lower breast and abdomen white; sides of the breast, of the body, and the under tail-coverts ochraceous.

Legs and feet delicate fleshy pink; claws brownish; upper mandible dark brown: lower mandible and edges of the upper towards the point pale fleshy pink; iris orange-buff (*Hume*).

Length about 7·5; tail 4·5; wing 2; tarsus ·9; bill from gape ·6. The tail appears to be constantly of the same length both in winter and summer, and probably is not moulted in the spring.

*Distribution.* The Khási and Nága hills. Also in Manipur, where Hume found this *Suya* on the Eastern hills.

*Habits, &c.* Hume states that this bird frequents dense herbaceous undergrowth of balsams and the like in forest. On the 11th of May he found a nest containing four well-incubated eggs. The nest was placed in a wild ginger-plant, about two feet from the ground, in forest at the very summit of the Matchi hill.

### 461. **Suya superciliaris.** *Anderson's Hill-Warbler.*

Suya superciliaris, *Anders. P. Z. S.* 1871, p. 212; *id. Yunnan Exped., Aves,* p. 642, pl. li; *Hume & Dav. S. F.* vi, p. 350; *Hume, S. F.* vii, p. 3; *id. Cat.* no. 547 bis; *Sharpe, Cat. B. M.* vii, p. 182; *Oates, B. B.* i, p. 124.

Suya albogularis, *Hume, S. F.* i, p. 459 (1873); *id. S. F.* ix, p. 227; *Sharpe, Cat. B. M.* vii, p. 182.

Suya erythropleura, *Wald. in Blyth's Birds Burm.* p. 120; *Hume, S. F.* v, p. 58; *Hume & Dav. S. F.* vi, p. 351; *Hume, Cat.* no. 549 quat.

*Coloration.* Forehead, crown, and nape dark brown; upper plumage and the edges of the wing-feathers fulvous-brown; tail fulvous-brown, with paler tips, but with no subterminal dark patches; a narrow white supercilium from the nostril to the end of the ear-coverts; lores, behind and round the eye dusky slaty; ear-coverts ashy grey; chin, cheeks, throat, breast, and abdomen fulvous-white, the breast darker, with brown marks or streaks, more numerous at the sides; sides of the body and under tail-coverts ochraceous.

Upper mandible black; lower mandible, legs, feet, and claws fleshy-pink; iris brownish yellow (*Hume & Davison*).

Length about 6·5; tail 3·8; wing 2; tarsus ·85; bill from gape ·6.

There appears to be no difference between the summer and winter plumage of this bird, judging from the specimens I have been able to examine.

*Distribution.* Anderson procured this species at Momein, on the Chinese frontier; Wardlaw Ramsay at Toungngoo; and Davison on Muleyit mountain, in Tenasserim. It also occurs in Sumatra.

## Genus **PRINIA**, Horsf., 1821.

The genus *Prinia* comprises seven Indian species of birds, which only differ from *Franklinia* in having ten tail-feathers instead of twelve.

They all have a complete spring moult, accompanied in some instances by such a change in colour and in the structure of the tail as to have given rise to great confusion among authors regarding the number of species. The ample materials now available suffice to bring this difficult group of birds into order. In fact but little remained to be done after Sharpe's masterly treatment of the group, and my own observations have chiefly served to corroborate his. To Hume and Brooks, however, is due the credit of having first furnished the clue by which the present order has been arrived at.

### *Key to the Species.*

*a.* Upper plumage streaked .............. *P. lepida*, p. 448.
*b.* Upper plumage not streaked.
  *a'*. Abdomen yellow .................. *P. flaviventris*, p. 449.
  *b'*. Abdomen fulvous or buff.
    *a''*. Bill intensely black.
      *a'''*. Upper plumage dark ashy ...... *P. socialis* æst., p. 450.

$b'''$. Upper plumage rufous-brown.... *P. socialis* hyem., p. 450.
$c'''$. Upper plumage earthy-brown.
  $a^4$. Outer tail-feathers white; wing about 2·5 .................. *P. sylvatica* æst., p. 451.
  $b^4$. Outer tail-feathers pale brown; wing about 2.
    $a^5$. Subterminal spots on tail pale and indistinct ............ *P. inornata* æst., p. 452.
    $b^5$. Subterminal spots on tail dark and distinct .............. *P. jerdoni* æst., p. 453.
$b''$. Bill brown, lower mandible very pale or flesh-coloured.
$d'''$. Upper plumage warm rufous-brown; wing about 2·5 ........ *P. sylvatica* hyem., p. 451.
$e'''$. Upper plumage earth-brown tinged with fulvous or green; wing 2.
  $c^4$. Subterminal spots on tail obsolete or very indistinct........ *P. inornata* hyem., p. 452.
  $d^4$. Subterminal spots on tail black and narrow ................ *P. jerdoni* hyem., p. 453.
  $e^4$. Subterminal spots on tail black and very broad, forming quite half a circle................ *P. blanfordi* æst. et hyem., [p. 454.

### 462. **Prinia lepida.** *The Streaked Wren-Warbler.*

Prinia lepida, *Blyth, J. A. S. B.* xiii, p. 376 (1844); *Oates in Hume's N. & E.* 2nd ed. i, p. 287.
Drymoica lepida (*Blyth*), *Blyth, Cat.* p. 143.
Suya lepida (*Blyth*), *Horsf. & M. Cat.* i, p. 327.
Burnesia lepida (*Blyth*), *Jerd. B. I.* ii, p. 185; *A. Anderson, Ibis*, 1872, p. 237; *Brooks, S. F.* v, p. 496, viii, p. 476; *Hume, S. F.* ix, p. 228; *Sharpe, Cat. B. M.* vii, p. 211.
Burnesia gracilis (*Rüpp.*), *apud Hume, N. & E.* p. 356; *id. S. F.* i, p. 195; *Adam, S. F.* i, p. 382; *Butler, S. F.* iii, p. 485; *Hume, Cat.* no. 550; *Doig, S. F.* viii, p. 378; *Barnes, Birds Bom.* p. 221.
Drymoipus lepidus (*Blyth*), *Brooks, S. F.* iv, p. 274.

*Khur-phootki*, Hind.; *Door*, Sind.

*Coloration.* Upper plumage and wing-coverts fulvous-brown, streaked with dark brown; wings brown, edged with fulvous; tail brown, distinctly cross-barred, tipped with white, and each feather with a subterminal dark patch; lores and round the eye whitish; ear-coverts whitish mottled with brown; the whole lower plumage very pale fulvous.

Legs and feet fleshy white; nails light brown; iris yellow (*Bingham*).

Length about 5·5; tail 2·5 to 3; wing 1·75; tarsus ·65; bill from gape ·55; the tail appears to be of the same length in summer and winter. The bill is black in summer; in the winter the upper mandible is pale brownish horny, the lower yellowish horny.

*Distribution.* Throughout the greater part of the Punjab, Sind, and Rajputana down to Cutch and Guzerat. This bird also extends down the valley of the Ganges to its Delta and up the Assam valley to the Dibong river, where Godwin-Austen procured it.

*Habits, &c.* *P. lepida* frequents the sandy beds and banks of rivers, where low bushes and clumps of grass grow. The breeding-season extends from March till October. The nest is egg-shaped with the entrance at the side, and is built of fine grass and seed-down in dense clumps of grass near the ground. The eggs, four in number, are pale green, freckled and streaked with red or purplish grey, and measure ·53 by ·44.

### 463. **Prinia flaviventris.** *The Yellow-bellied Wren-Warbler.*

Orthotomus flaviventris, *Deless. Rev. Zool.* 1840, p. 101.

Prinia flaviventris (*Deless.*), *Blyth, Cat.* p. 144; *Horsf. & M. Cat.* i, p. 321; *Jerd. B. I.* ii, p. 169; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 271; *Hume, N. & E.* p. 334; *Blyth & Wald. Birds Burm.* p. 118; *Oates, S. F.* iii, p. 340; *id. S. F.* v, p. 158; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, pp. 79, 202; *Wardlaw Ramsay, Ibis,* 1877, p. 466; *Hume & Dav. S. F.* vi, p. 347; *Hume, Cat.* no. 532; *Doig, S. F.* viii, p. 378; *Butler, S. F.* viii, p. 386; *Oates, S. F.* x, p. 219; *Barnes, Birds Bom.* p. 215; *Hume, S. F.* xi, p. 207; *Oates in Hume's N. & E.* 2nd ed. i, p. 289.

Burnesia flaviventris (*Deless.*), *Sharpe, Cat. B. M.* vii, p. 204; *Oates, B. B.* i, p. 111.

*Coloration.* In summer the forehead and crown are dark ashy; upper plumage and wings olive-green; a whitish ring round the eye; sides of the head ashy; chin, throat, and upper breast white; remainder of the lower plumage bright yellow; tail olive-green, tipped whitish, and each feather with an obscure subterminal brown patch.

In winter the tail is longer, the feathers are obsoletely tipped paler and have no subterminal brown patches, and there is also a short white eyebrow.

The white eyebrow occurs somewhat irregularly in these birds, but is apparently seasonal.

Birds obtained in the Malay peninsula from Klang to Singapore are remarkable for the very large size of the bill.

The young resemble the adult in winter, but have the whole lower plumage pale yellow.

Mouth black; iris reddish yellow; eyelids plumbeous; bill black; legs orange-fleshy; claws yellowish. In the non-breeding season the mouth is flesh-coloured and the lower mandible is pale.

In winter the length is about 5·5; tail 3; wing 1·75; tarsus ·8; bill from gape ·65; in summer the tail measures but slightly over 2 inches and the total length is reduced to about 4·7.

*Distribution.* Occurs in Sind along the Eastern Nára and at Sukkur, and is found again in the Nepal Terai and the Bhutan Doars, extending up the Assam Valley to Sadiya. From the foot of the Himalayas the range of this bird extends throughout Bengal to Calcutta, and on the east to the extreme southern end of Tenasserim and on to Singapore.

*Habits, &c.* This species frequents swamps, the banks of rivers and canals, and grassy plains which are low and liable to inundation. It breeds from May to September, constructing an oval nest of grass with an aperture near the top and lined with the finest grass-stems.

The nest is built in low jungle, generally near water. The eggs, usually four in number, are a bright mahogany-red and measure ·56 by ·46.

### 464. **Prinia socialis.** *The Ashy Wren-Warbler.*

Prinia socialis, *Sykes, P. Z. S.* 1832, p. 89; *Blyth, Cat.* p. 143; *Horsf. & M. Cat.* i, p. 321; *Jerd. B. I.* ii, p. 170; *Hume, N. & E.* p. 336; *Butler, S. F.* iii, p. 479; *Hume, S. F.* iv, p. 497; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 79; *Legge, Birds Ceyl.* p. 529; *Hume, Cat.* no. 534; *Davison, S. F.* x, p. 391; *Barnes, Birds Bom.* p. 216; *Oates in Hume's N. & E.* 2nd ed. i, p. 291.
Prinia stewarti, *Blyth, J. A. S. B.* xvi, p. 455 (1847); *id. Cat.* p. 144; *Jerd. B. I.* ii, p. 171; *Hume, N. & E.* p. 338; *id. Cat.* no. 535; *Barnes, Birds Bom.* p. 216.
Burnesia socialis (*Sykes*), *Sharpe, Cat. B. M.* vii, p. 208.
Prinia poliocephala, *A. Anders. P. Z. S.* 1878, p. 370, pl. xix; *Hume, S. F.* vii, p. 319; *id. Cat.* no. 535 bis.
Prinia brevicauda, *Legge, Birds Ceyl.* p. 521 (1878).
Cisticola poliocephala (*A. Anders.*), *Sharpe, Cat. B. M.* vii, p. 257.

*The Dark-ashy Wren-Warbler*, *Stewart's Wren-Warbler*, Jerd.; *Phutki*, *Kala-phutki*, H.; *Pit-pitta*, H. in South India.

*Coloration.* In summer the forehead, crown, nape, back, and rump are dark ashy; wings and tail rufous, the latter with whitish tips and subterminal black patches; cheeks, ear-coverts, sides of neck, and the whole lower plumage light buff, the thighs darker and the centre of the abdomen whitish.

In winter the forehead, crown, and nape are ashy tinged with rufous; the back, rump, and upper tail-coverts rufous-brown; tail rufous with white tips and subterminal black patches; wings brown, edged with rufous; lores black; above the lores a short white eyebrow; chin, throat, and middle of abdomen whitish; remainder of lower plumage buff, darker on the thighs.

In summer the iris is yellowish brown; bill black; legs and feet fleshy (*Butler*). In winter the bill appears to be black also.

Length in summer about 5; tail 2·2; wing 2; tarsus ·75; bill from gape ·6; in winter the total length is about 6 and the tail 3.

The white eyebrow is a characteristic of the winter plumage, but some birds appear to retain it throughout the summer.

*Distribution.* Throughout India from the Himalayas to Ceylon. On the west this species does not occur in the Punjab beyond the Chenab river nor in Sind, and it is rare or absent in Cutch and Guzerat. It is found in the lower ranges of the Himalayas up to 4000 feet and in the hills of Southern India up to 7000. On the east it occurs as far as the Daphla hills on the north and the Khási hills on the south.

*Habits, &c.* Breeds throughout the above area from March to September. The nest is of two types: one a leaf nest, like that of the Tailor-bird formed of two or three leaves stitched together, and the receptacle thus formed filled with cotton, grass, and wool; and the other a domed structure of grass, the nest in both cases being not far from the ground. The eggs, three or four in number, are deep red and measure ·64 by ·47.

### 465. **Prinia sylvatica.** *The Jungle Wren-Warbler.*

Prinia sylvatica, *Jerd. Madr. Journ. L. S.* xi, p. 4 (1840); *Sharpe, Cat. B. M.* vii, p. 199, pls. vii, viii; *Oates in Hume's N. & E.* 2nd ed. i, p. 299.

Prinia neglecta, *Jerd. Madr. Journ. L. S.* xiii, pt. 2, p. 130 (1844).

Drymoica sylvatica (*Jerd.*), *Blyth, Cat.* p. 142; *Horsf. & M. Cat.* i, p. 327.

Drymoica neglecta (*Jerd.*), *Blyth, Cat.* p. 142; *Horsf. & M. Cat.* i, p. 328.

Drymoica robusta, *Blyth, J. A. S. B.* xviii, p. 812 (1849); *id. Cat.* p. 142.

Drymoica valida, *Blyth, J. A. S. B.* xx, p. 180 (1851); *Horsf. & M. Cat.* p. 328; *Hume, S. F.* vii, p. 395.

Drymoipus sylvaticus (*Jerd.*), *Jerd. B. I.* ii, p. 181; *Hume N. & E.* p. 351; *Barnes, Birds Bom.* p. 220.

Drymoipus neglectus (*Jerd.*), *Jerd. B. I.* ii, p. 182; *Hume, N. & E.* p. 352; *Barnes, Birds Bom.* p. 220.

Drymoipus jerdoni (*Blyth*), *apud Stoliczka, J. A. S. B.* xli, pt. ii, p. 240.

Drymœpus rufescens, *Hume, Ibis,* 1872, p. 110.

Drymoipus rufescens (*Hume*), *Hume, N. & E.* p. 351; *id. S. F.* ii, p. 453, iii, p. 408; *Butler, S.F.* iii, p. 484; *Barnes, Birds Bom.* p. 219.

Drymoipus insignis, *Hume, S. F.* i, p. 10 (1873); *id. N. & E.* p. 351; *Butler, S. F.* iii, p. 484.

Drymoica rufescens (*Hume*), *Ball & Hume, S. F.* vii, pp. 217, 218.

Drymœca rufescens (*Hume*), *Hume, Cat.* no. 544 bis.

Drymœca sylvatica (*Jerd.*), *Hume, Cat.* no. 545.

Drymœca insignis (*Hume*), *Hume, Cat.* no. 545 bis.

Drymœca valida (*Blyth*), *Hume, Cat.* no. 545 ter; *Legge, Birds Ceyl.* p. 525, pl. 25; *Parker, S. F.* ix, p. 480.

Drymœca neglecta (*Jerd.*), *Hume, Cat.* no. 546.

Drymœca jerdoni (*Blyth*), *Legge, Birds Ceyl.* p. 527; *Parker, S. F.* ix, p. 480.

*The Jungle Wren-Warbler, The Allied Wren-Warbler,* Jerd.; *Kondalotakun-jitta,* Tel.; *Tot-rungi,* H. in Central India.

*Coloration.* In the summer the upper plumage is earthy brown tinged with rufous, and the head darker and suffused with ashy, the edges of the wings more rufous; middle tail-feathers brown; the next pair brown, tipped white and with a subterminal brown spot; the others progressively paler and whiter, the outermost pair becoming almost entirely white; the whole tail cross-rayed; lores, a short supercilium, and round the eye pale fulvous; ear-coverts grey; lower plumage very pale buff.

In winter the upper plumage is a warm rufous-brown, the margins of the wings and tail brighter; the tail cross-rayed, with light fulvous tips and dusky subterminal bars; lores and a supercilium to just past the eye whitish; ear-coverts fulvous-brown with white shafts; cheeks light fulvous barred with brown; entire lower plumage ochraceous, whitish on the middle of the abdomen.

The young are like the adult in winter plumage, but more rufous above and deep fulvous below.

In summer the legs and feet are fleshy; iris hazel; bill and gape black; in winter the bill is brown, yellowish at base.

Length in summer about 6; tail 2·6 to 2·9; wing 2·2 to 2·5; tarsus ·8; bill from gape ·7; in winter the total length is about 6·5 and the tail 2·8 to 3·2.

After examining several hundreds of these larger Wren-Warblers I can come to no other conclusion but that there is only one species throughout India, in spite of variations of colour and size. Jerdon described *Drymoipus sylvaticus* and *D. neglectus* very indifferently, but as both names can only apply to the present species, I have adopted the first of them for it.

*Distribution.* Throughout India from the Himalayas to Ceylon. The western limit appears to be a line drawn from Cutch to Garhwál and the eastern the meridian of longitude passing through Calcutta. I have seen specimens from Garhwál and Kumaun, but from no other part of the Himalayas themselves.

*Habits, &c.* Breeds from June to September, constructing a roundish nest of grass in a bush or a clump of grass close to the ground. The eggs, three to five in number, are pale greenish speckled and marked with pale reddish brown; they measure ·7 by ·5.

### 466. **Prinia inornata** [*]. *The Indian Wren-Warbler.*

Prinia inornata, *Sykes, P. Z. S.* 1832, p. 89; *Sharpe, Cat. B. M.* vii, p. 195; *Oates, B. B.* i, p. 114; *id. in Hume's N. & E.* 2nd ed. i, p. 301.
Sylvia longicaudata, *Tick. J. A. S. B.* ii, p. 576 (1833).
Prinia fusca, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844); *id. P. Z. S.* 1845, p. 29.
Drymoipus inornatus (*Sykes*), *Jerd. B. I.* ii, p. 178; *Hume, N. & E.* p. 346; *id. & Henders. Lah. to Yark.* p. 215, pl. xvii, fig. 1; *Brooks, S. F.* iii, p. 295, iv, p. 274; *Anders. Yunnan Exped., Aves,* p. 640; *Barnes, Birds Bom.* p. 218.
Drymoipus longicaudatus (*Tick.*), *Jerd. B. I.* ii, p. 180; *Hume & Henders. Lah. to Yark.* p. 215, pl. xvii, fig. 2; *Butler & Hume, S. F.* iii, p. 483.
Drymoipus fuscus (*Hodgs.*), *Hume, N. & E.* p. 348.
Drymoipus terricolor, *Hume, N. & E.* p. 349; *Butler & Hume, S. F.* iii, p. 481; *Brooks, S. F.* iv, p. 229; *Hume, S. F.* iv, p. 407.
Drymoipus longicaudus (*Tick.*), *Hume, N. & E.* p. 350.
Drymœca inornata (*Sykes*), *Hume, Cat.* no. 543; *Brooks, S. F.* vii, p. 468.
Drymœca fusca (*Hodgs.*), *Hume, S. F.* vii, p. 395; *id. Cat.* no. 543 bis.
Drymœca longicaudata (*Tick.*), *Hume, Cat.* no. 544.

*The Common Wren-Warbler*; *The Long-tailed Wren-Warbler*, Jerd.; *Lota-kun-jitta,* Tel.; *Niong-pho,* Lepch.

*Coloration.* In summer the whole upper plumage is earthy brown, each feather with a darker centre; the wings and tail edged with pale fulvous, the latter cross-rayed; lores brown; a supercilium from the nostrils to just behind the eye, and a ring round the eye pale fulvous-white; ear-coverts and under the eye pale brown; the whole lower plumage pale buff, the thighs conspicuously darker than the other parts; lower aspect of tail whitish, with narrow, ill-defined, and frequently obsolete subterminal brown spots.

In winter the upper plumage is fulvous-brown, the crown indistinctly streaked with brown; wings dark brown, edged with rufous;

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[*] I cannot identify *Prinia adamsi*, Jerdon (*Jerd. B. I.* ii, p. 170; *Blanford, Ibis,* 1872, p. 84; *Hume, N. & E.* p. 335; *Barnes, Birds Bom.* p. 215).

tail rufous-brown, indistinctly cross-rayed and margined with brighter rufous; lores, a supercilium to just past the eye, the sides of the head, and the whole lower plumage pale buff, the thighs conspicuously darker; lower aspect of tail pale rufous with paler tips and very indistinct, or obsolete, subterminal brown patches.

The young resemble the adults in winter plumage, but are more rufous above and of a brighter buff below; the tail is faintly tipped with rufous, but there are no traces of subterminal bars.

Specimens from Manipur resemble *P. inornata* in having the bills black in summer and brown in winter plumage, and in the character of the tail-marks, but the whole tone of the winter plumage is very tawny. A Bhámo specimen is nearer to *P. inornata* than to *P. blanfordi.*

In summer the bill is black; iris yellowish brown; legs and feet flesh-colour (*Butler*).

In winter the bill is brown, pale horny fleshy at the base of the lower mandible; legs and feet fleshy-pink, the feet tinged brownish; iris bright yellow (*Hume*).

In winter, length up to 6·5, tail up to 3·5; in summer, length up to about 5·3, tail up to 2·3; wing 2; tarsus ·8; bill from gape ·6.

*Distribution.* Distributed as a permanent resident throughout the whole of India from the Himalayas to the Nilgiri hills. At Naduvatam on the Nilgiris this and the next species are found together and both are typical in coloration and length of tail. *P. inornata* extends to the East as far as Manipur, and a Bhámo specimen is very close to this species, but the exact range of this and *P. blanfordi* can only be determined with absolute accuracy by summer-killed specimens. Blyth records *P. inornata* from Arrakan.

*Habits, &c.* Breeds throughout the rains, constructing a deep purse-like nest composed entirely of fine grass and attached to some stems of grass. The eggs, generally four in number, are greenish blue, spotted, speckled, and blotched with chocolate and red, in addition to which marks there are usually some delicate interwoven lines of the same colours. They measure ·61 by ·45.

### 467. **Prinia jerdoni.** *The Southern Wren-Warbler,*

Drymoica jerdoni, *Blyth, J. A. S. B.* xvi, p. 459 (1847); *id. Cat.* p. 142; *Jerd. B. I.* ii, p. 180.
Drymoipus jerdoni (*Blyth*), *Hume, S. F.* i, p. 437.
Drymoipus fuscus (*Hodgs.*), *Hume, N. & E.* p. 348.
Drymœca inornata (*Sykes*), *apud Fairbank, S. F.* v, p. 406.
Drymœca insularis, *Legge, Birds Ceyl.* p. 529, pl. xxv (1879); *Parker, S. F.* ix, p. 480.
Drymœca jerdoni (*Blyth*), *Hume, Cat.* no. 544 ter.
Drymœca inornata (*Sykes*), *Davison, S. F.* x, p. 393.
Prinia jerdoni (*Blyth*), *Oates in Hume's N. & E.* 2nd ed. i, p. 304.

*Coloration.* Resembles *P. inornata.* Differs in having the subterminal spots on the tail large, dark brown, and distinct, and the whitish tips very sharply defined; the tail in winter is shorter, not exceeding the length of the tail of *P. inornata* in summer; the upper plumage is much darker and less rufous in the winter.

The young bird has the dark spots on the tail developed in an extraordinary manner.

Of the same dimensions as *P. inornata*, but the tail in winter does not exceed 3, and in summer 2.

*Distribution.* Southern India from Mysore to Cape Comorin; Ceylon. This bird occurs at considerable elevations as well as on the plains, being found on the Palni hills up to 5000 feet.

*Habits, &c.* Breeds from April to July, constructing a nest of the same character as that of *P. inornata* and laying precisely similar eggs.

### 468. **Prinia blanfordi.** *The Burmese Wren-Warbler.*

Drymoipus extensicauda, *Swinh. apud Oates, S. F.* iii, p. 340.
Drymoeca blanfordi, *Wald. in Blyth, Birds Burm.* p. 118; *Hume, S. F.* v, p. 57; *id. Cat.* no. 543 ter.
Drymœca extensicauda (*Swinh.*), *apud Oates, S. F.* v, p. 159, x, p. 221; *Hume, Cat.* no. 544 quat.; *id. S. F.* xi, p. 215.
Drymoipus extensicaudata, *Swinh. apud Armstrong, S. F.* iv, p. 328.
Drymoica blanfordi, *Wald., Hume & Dav. S. F.* vi, p. 349.
Drymoica extensicauda (*Swinh.*), *apud Hume & Dav. S. F.* vi, p. 350; *Bingham, S. F.* ix, p. 186.
Prinia inornata, *Sykes, Sharpe, Cat. B. M.* vii, p. 195 (part.).
Prinia blanfordi (*Wald.*), *Oates, B. B.* i, p. 112; *id. in Hume's N. & E.* 2nd ed. i, p. 305.

*Coloration.* Resembles *P. inornata*, but at both seasons of the year there is an appreciable tinge of green running through the upper plumage; the sides of the head and the supercilium are distinctly fulvous; the subterminal patches on the tail-feathers are very large and distinct, nearly black and as broad as the feathers, and the tips are pure white and very well defined. An important difference is that the bill remains brown throughout the summer.

Iris orange-yellow; eyelids plumbeous, the edges orange; upper mandible fleshy brown, lower pale fleshy, the tips dusky; mouth flesh-coloured; legs reddish yellow; claws pinkish horn.

Length in winter 6, in summer 5·2; tail in winter 3, in summer 2 to 2·2; wing 1·9; tarsus ·8; bill from gape ·6.

*Distribution.* Occurs abundantly in suitable localities throughout Southern Pegu and the valley of the Sittoung river up to Toungngoo. This bird is also found in Tenasserim as far south as Tavoy.

*Habits, &c.* Breeds from May to August or even later, constructing a deep purse-like nest of grass, attached to several stalks of elephant grass or the small branches of a bush or weed not far from the ground. The eggs, three or four in number, are white or pale green or pale pink, spotted and blotched with dark purple and reddish brown. They measure ·58 by ·44.

*P. extensicauda*, Swinh., from China, differs from *P. inornata* in being much greener above and more yellow below; and from *P. blanfordi* in having the bill black in summer as well as in other particulars.

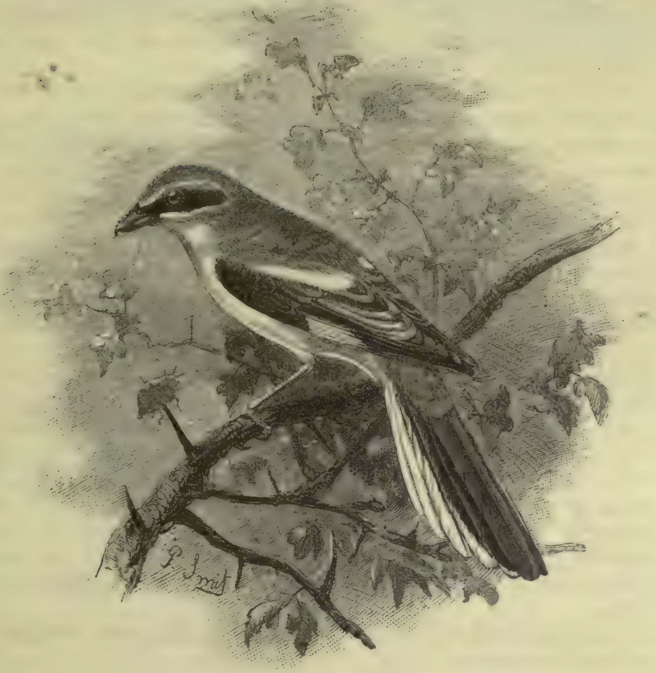

Fig. 138.—*Lanius lahtora.*

## Family LANIIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles smooth, or the upper one simply notched or toothed, or both; hinder aspect of tarsus smooth, composed of two entire longitudinal laminæ; wing with ten primaries; tongue non-tubular; nostrils clear of the line of forehead, the lower edge of the nostril nearer to the commissure than the upper edge is to the culmen; plumage of the nestling cross-barred; rectrices twelve; nostrils more or less overhung by bristles and hairs; an autumn moult only *.

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* Gadow states that some of the Shrikes have a seasonal change of plumage. I think that he is in error on this point.

The *Laniidæ* or Shrikes are a group of birds in which the plumage of the young is cross-barred, as a rule both above and below. As thus defined, this group is of the same extent as the *Laniidæ* of Jerdon, with the exception that the *Dicruridæ* are here separated from the family.

In the *Laniidæ*, and especially in *Lanius*, the bill is very strong, being both hooked and notched. These birds live almost entirely on insects, the true Shrikes occasionally seizing a small bird or mammal. Some descend to the ground to seize their prey, a few catch insects entirely on the wing, and others, again, merely search branches and leaves for their food.

Some of the genera of *Laniidæ* are remarkable for the spinous character of the shafts of the rump-feathers. These constitute the subfamily *Campophaginæ* of Jerdon. The only other Indian bird possessing this curious structure of the feathers is *Pinarocichla* (p. 279); but whereas in *Campophaga* and the allied genera it is the feathers of the rump which are stiffened, in *Pinarocichla* it is chiefly the feathers of the back.

All the *Laniidæ* have rictal bristles, a scutellated tarsus, and twelve tail-feathers. They have only one moult a year. The young retain the barred plumage throughout their first winter, the bars gradually becoming fewer and some disappearing entirely by a change of colour in the feather. In some few genera the barred plumage appears to be retained for two or more years, and traces of bars may be detected on the breast of what are apparently aged birds.

I shall divide the *Laniidæ* into two subfamilies only, the *Laniinæ* and the *Artaminæ*.

| | |
|---|---|
| Wings when folded not reaching beyond middle of tail; first primary not shorter than tarsus; second primary falling short of tip of wing .......................... | *Laniinæ*, p. 456. |
| Wings when folded reaching quite to tip of tail; first primary very minute, much shorter than tarsus; second primary longest in wing .......................... | *Artaminæ*, p. 498. |

## Subfamily LANIINÆ.

This subfamily comprises the true Shrikes, the Pied-Shrikes, the Wood-Shrikes, the Jay-Shrikes, the Minivets, and the Cuckoo-Shrikes.

*Key to the Genera.*

- *a*. Shafts of rump-feathers soft.
  - *a'*. Head not crested.
    - *a''*. Tail-feathers well graduated.
      - *a'''*. Bill deep and laterally compressed; margin of upper mandible near tip strongly notched and toothed.... LANIUS, p. 457.

*b‴*. Bill flattened and broad; margin of upper mandible near tip merely notched .......................... Hemipus, p. 471.
*b″*. Tail square .......................... Tephrodornis, p. 473.
*b′*. Head with long crest .................. Platylophus, p. 476.
*b*. Shafts of rump-feathers spinous.
*c′*. Tail greatly graduated, outer feathers less than half length of tail .............. Pericrocotus, p. 477.
*d′*. Tail moderately graduated, outer feathers more than three-quarters length of tail.
*c″*. Secondaries falling short of tip of wing by about length of tarsus .......... Campophaga, p. 491.
*d″*. Secondaries falling short of tip of wing by about twice length of tarsus ........ Graucalus, p. 496.

## Genus **LANIUS**, Linn., 1766.

The genus *Lanius* comprises a very extensive group of birds found over Asia, Europe, Africa, and North America. Fifteen species are found within our limits, some of which are resident, others winter visitors, and a few locally migratory. With few exceptions they occur abundantly over large tracts of country.

In *Lanius* the sexes are always alike, but the females appear to retain traces of the barred plumage of the nestling longer than the males. The bill is very strong and laterally compressed, with a large tooth and a deep notch near the tip of the upper mandible, which is bent down and hooked. The nostrils are roundish and overhung by numerous hairs and bristles, but not completely hidden. The wings are strong. The tail is generally longer than the wing, but in a few instances about equal to it, and strongly graduated. The plumage is firm. The head of a Shrike is rather larger in proportion to the size of the body than is usual in the other *Passeres*, and in life this character is very evident in the majority of the species.

The Shrikes are solitary birds, frequenting spare jungle, gardens, fields, and the outskirts of forests. They perch on some prominent object such as a post or a bare branch and watch for insects, which they capture on the ground and return to their perch to devour. Some species have the habit of impaling their prey on a thorn and then tearing it to pieces. Their notes are harsh and at times frequently uttered.

The Shrikes make, in trees and bushes, large cup-shaped nests, composed of fine twigs, grass, and dead leaves intermingled with other substances. The number of eggs laid is usually four or five, and they may be described in general terms as being greenish white, blotched and spotted with various shades of brown and pale purple.

## *Key to the Species.*

- *a*. Upper tail-coverts and middle pair of tail-feathers of totally different colours.
  - *a'*. A white patch on primaries.
    - *a''*. Tail entirely black and white, the two colours abruptly defined.
      - *a'''*. Back grey.
        - $a^4$. Two middle pairs of tail-feathers entirely black.
          - $a^5$. Lesser wing-coverts black with grey tips .......... *L. lahtora*, p. 459.
          - $b^5$. Lesser wing-coverts entirely grey.
            - $a^6$. Inner webs of secondaries chiefly white.......... *L. assimilis*, p. 460.
            - $b^6$. Inner webs of secondaries chiefly black.......... *L. fallax*, p. 460.
        - $b^4$. All the tail-feathers broadly white at their base ........ *L. homeyeri*, p. 461.
      - *b'''*. Back chestnut.
        - $c^4$. Upper tail-coverts whitish grey .................... *L. vittatus*, p. 462.
        - $d^4$. Upper tail-coverts chestnut .. *L. collurioides*, p. 462.
    - *b''*. Tail black or brown and rufous, blending into each other.
      - *c'''*. Crown of head black.......... *L. nigriceps*, p. 463.
      - *d'''*. Crown of head grey.......... *L. erythronotus*, p. 464.
  - *b'*. No white patch on primaries.
    - *c''*. Head and back grey............ *L. tephronotus*, p. 465.
    - *d''*. Head grey, back chestnut ...... *L. collurio*, p. 466.
- *b*. Upper tail-coverts and middle pair of tail-feathers of same colour.
  - *c'*. Crown of head and back nearly of the same rufous or sandy colour.
    - *e''*. Tail shorter than wing; outer tail-feathers falling short of tip of tail by about half length of tarsus.
      - *e'''*. An indistinct white supercilium; lores whitish................ *L. isabellinus*, p. 467.
      - *f'''*. A very distinct white supercilium; lores deep black...... *L. phœnicuroides*, p. 468.
    - *f''*. Tail equal to or longer than wing; outer tail-feathers falling short of tip of tail by about length of tarsus.
      - *g'''*. Whole crown rufous, darker than back ...................... *L. cristatus*, p. 468.
      - *h'''*. Anterior part of crown greyish white; posterior part greyish brown like back ............ *L. lucionensis*, p. 469.
  - *d'*. Crown grey; back chestnut barred with black ..................... *L. tigrinus*, p. 470.

The Grey Shrikes, of which there are four representatives in India, are very numerous and are not easily distinguished. The four Indian species, however, are sufficiently distinct and may be recognized without difficulty.

The following species may hereafter be found to occur within our limits :—(1) *L. minor*, a small species with the lower plumage in the adult tinged with pink, and with a very small first primary, less than a third of the length of the second. Swinhoe obtained this species at Kandahar. (2) *L. grimmi*, a pale desert form, very light ashy grey above, the lores whitish and the eye-band pale brown; the tail white at the base as in *L. homeyeri*; the basal halves of the inner webs of the secondaries white, the remainder of each feather brown, not black. A specimen was obtained by Blanford at Báhu Kelát in Persian Baluchistan, in February. Other forms may not improbably be found in Sind and the Punjab, as the Shrikes are great wanderers, but space will not allow of their being noticed here.

### 469. **Lanius lahtora.** *The Indian Grey Shrike.*

Collurio lahtora, *Sykes, P. Z. S.* 1832, p. 86; *Gray & Hardw. Ill. Ind. Zool.* ii, pl. 32; *Hume, S. F.* i, p. 174; *id. N. & E.* p. 165.

Lanius lahtora (*Sykes*), *Blyth, Cat.* p. 151; *Horsf. & M. Cat.* i, p. 163; *Jerd. B. I.* i, p. 400; *Stoliczka, J. A. S. B.* xli, pt. ii, p. 235; *Butler, S. F.* iii, p. 462; *Ball, S. F.* vii, p. 209; *Hume, Cat.* no. 256; *Barnes, S. F.* ix, p. 216; *Gadow, Cat. B. M.* viii, p. 252; *Barnes, Birds Bom.* p. 143; *Oates in Hume's N. & E.* 2nd ed. i, p. 306.

*Dudiya latora*, Hind.; *Safed latora*, Hind. in the N.W.; *Kach-kacha-latora*, Beng.; *Chinka bellinchi*, *Pedda kiriti-gadu*, Tel.

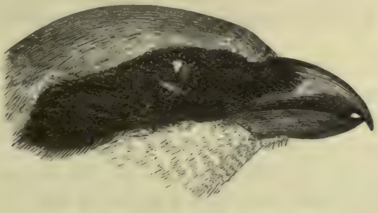

Fig. 139.—Head of *L. lahtora*.

*Coloration.* Forehead, lores, and a broad band through the eye and ear-coverts down the side of the neck black, the frontal portion indistinctly margined with white above; upper plumage bluish grey, paler on the rump and upper tail-coverts; scapulars white; the middle two pairs of tail-feathers black with narrow white tips; the next two pairs very narrowly white at base and broadly white at tip; the outer two pairs white, with the shafts and some small portions of the webs near them black; wing-coverts black, the lesser series tipped with grey; primaries with the basal half white, the terminal half black with narrow white tips; secondaries with the outer webs black, tipped white, the inner webs white except at the base, where they are black; tertiaries black with white tips; the whole lower plumage pure white.

Iris dark brown; legs, feet, and bill black (*Butler*).

Length about 10; tail 4·6; wing 4·3; tarsus 1·15; bill from gape 1·05.

The amount of black on the forehead and white on the tail increases with age. The amount of white on the wing appears to be constant at all ages.

*Distribution.* A permanent resident in the plains of India from Sind and the Punjab to the Rajmehal Hills, Manbhoom and Lohardugga in Western Bengal; to the south this species does not appear to be found further than Belgaum, from which part Butler records it, and Chánda in the Central Provinces, where Blanford met with it. It is confined to the plains and does not ascend the Himalayas nor any of the hill-ranges. It extends into Afghanistan.

*Habits, &c.* Breeds according to locality from January to August, constructing a very massive nest of varied materials in trees in open plains. The eggs, varying in number from three to six, measure about 1·03 by ·79.

### 470. **Lanius assimilis.** *The Allied Grey Shrike.*

Lanius assimilis, *Brehm, Journ. für Orn.* 1854, p. 146; *Gadow, Cat. B. M.* viii, p. 249.

*Coloration.* Resembles *L. lahtora* in general appearance. Differs in having only the hairs overhanging the nostrils black, not the forehead; the upper plumage pale grey; the lesser wing-coverts entirely grey; the white on the inner webs of the secondaries less pure and rather smaller in extent, and the lower plumage faintly tinged with pink.

The colour of the iris &c. does not appear to have been recorded.

Length about 9; tail 4·3; wing 4·2; tarsus 1; bill from gape 1.

*Distribution.* No specimens of this species are contained in the Hume Collection, but there are three in the British Museum which were obtained within our limits—one at Daulatpur in Sind, and one at Karáchi by Dr. Gould, and a third in the Punjab by Brigadier Hearsay. Dr. Aitchison procured this bird in Afghanistan, and it occurs at Fao on the Persian Gulf and in Mesopotamia.

Gadow gives the range of this species as extending from Sennaar and the White Nile through Turkestan to the Amoor.

### 471. **Lanius fallax.** *Finsch's Grey Shrike.*

Lanius fallax, *Finsch, Trans. Z. Soc.* vii, p. 249, pl. xxv (1870); *Gadow, Cat. B. M.* viii, p. 247, pl. viii.

*Coloration.* Resembles *L. lahtora* in general appearance. Differs in having the black on the frontal part of the head confined to the bristles over the nostrils and to a very narrow band at the base of the upper mandible; in having the inner webs of the secondaries blackish brown margined with white and the lower plumage tinged with ashy; in having the upper plumage paler grey; and in having the lesser wing-coverts entirely grey.

Of the same size as *L. lahtora*.

From *L. assimilis* this species differs in having the inner webs of the secondaries almost entirely brown and in having the upper plumage darker.

*L. assimilis* and *L. fallax* are very closely allied, but there is no difficulty in separating the two, if the inner webs of the secondaries be examined. Neither of them can possibly be confounded with *L. lahtora*, the colour of the lesser wing-coverts being sufficient at all ages to distinguish the latter from the other two.

*Distribution.* I have examined the four birds procured in Abyssinia by Jesse and named *L. fallax* by Finsch. To the same species must be referred a Shrike procured by Blanford at Gwádar in Baluchistan in December, and another procured by Lieut. Burgess, probably in the Deccan. I have not been able to examine any other specimens collected within our limits.

*L. fallax* occurs in Abyssinia and Nubia, Palestine, Mesopotamia, Muscat, and Afghanistan.

### 472. **Lanius homeyeri.** *Homeyer's Grey Shrike.*

Lanius homeyeri, *Cabanis, Journ. für Orn.* 1873, p. 75; *Severtzoff, S. F.* iii, p. 430; *Scully, S. F.* iv, p. 136; *Biddulph, Ibis*, 1881, p. 51; *Scully, Ibis*, 1881, p. 432; *Gadow, Cat. B. M.* viii, p. 242.

*Coloration.* Forehead, nasal plumes, and a narrow supercilium white; anterior part of lores white, posterior part and a band to the end of the ear-coverts black; upper plumage pale grey; scapulars, lower rump, and upper tail-coverts white; the middle pair of tail-feathers white for one third of their length at the base, then black with a narrow white tip; the next two pairs with more white at base and broader white tips; the remaining feathers nearly entirely white; lesser wing-coverts grey; the outer coverts black; primaries and secondaries broadly white at base on both webs, then black with indistinct white tips; tertiaries wholly black; lower plumage white with, in most cases, traces of wavy bars on the breast.

Upper mandible black, the edge whitish at gape; lower mandible black at tip, whitish horny at base; legs, feet, and claws black (*Scully*).

Length about 10; tail 4·7; wing 4·6; tarsus 1·1; bill from gape 1·05.

This species is closely allied to *L. excubitor* of Europe, from which it differs in having more white on the lores, wings, and tail.

*Distribution.* Gilgit, on migration in spring and autumn.

This species is found in Turkestan in winter, and it extends westwards to Russia and northwards to Siberia.

### 473. **Lanius vittatus.** *The Bay-backed Shrike.*

Lanius vittatus, *Valenciennes, Dict. Sc. Nat.* xl, p. 227 (1826); *Hume, N. & E.* p. 173; *Ball, S. F.* vii, p. 209; *Hume, Cat.* no. 260; *Davison, S. F.* x, p. 365; *Gadow, Cat. B. M.* viii, p. 280; *Barnes, Birds Bom.* p. 144; *Oates in Hume's N. & E.* 2nd ed. i, p. 311.

Collurio hardwickii, *Vigors, P. Z. S.* 1831, p. 42; *Gould, Cent.* pl. 12, fig. 1.

Lanius hardwickii (*Vigors*), *Blyth, Cat.* p. 152; *Horsf. & M. Cat.* i, p. 165; *Jerd. B. I.* i, p. 405; *Stoticzka, J. A. S. B.* xxxvii, pt. ii, p. 26.

*Pachanak,* Hind.; *Chota kilotora,* Beng.; *Chinna belincki, Venne-dega,* Tel.; *Kichang kuravi,* Tam.

*Coloration.* Forehead, anterior part of crown, and a broad band encircling the eye and reaching to the end of the ear-coverts deep black; the black of the crown succeeded by a more or less white band shading off into grey on the nape and hind neck; back and scapulars deep chestnut-maroon; rump white, shading into grey on the upper tail-coverts; wings entirely black, occasionally some of the feathers narrowly margined with pale rufous or white; a broad white patch at the base of the primaries; the middle pair of tail-feathers entirely black; the others partially white at base, then black, and tipped with white, the outermost feather being nearly entirely white; chin, throat, lower abdomen, and under tail-coverts white; breast and upper abdomen fulvous, becoming dark ferruginous on the flanks.

The young are fulvous above barred with black, and white below with wavy brown bars on the breast and sides.

Iris dark brown; legs and feet dusky plumbeous or black; bill black, paling at the base of the lower mandible (*Butler*); iris reddish brown (*Hume*).

Length about 7·5; tail 3·4; wing 3·3; tarsus ·85; bill from gape ·7.

*Distribution.* The whole peninsula of India to Mysore and the foot of the Nilgiris in the south, and to Bhutan, the Rajmehal hills, and Midnapore on the east. This species ascends the Himalayas to 4000 or 5000 feet. It is resident, and extends into Afghanistan and Baluchistan.

*Habits, &c.* Breeds from April to September, constructing a nest in trees or hedgerows. The eggs, five or six in number, are of the usual Shrike type and measure about ·83 by ·66.

### 474. **Lanius collurioides.** *The Burmese Shrike.*

Lanius collurioides, *Lesson, Voy. Bélang.* p. 250 (1834); *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 157; *Anders. Yunnan Exped., Aves,* p. 646; *Hume & Dav. S. F.* vi, p. 203; *Hume, Cat.* no. 260 ter; *Bingham, S. F.* ix, p. 171; *Oates, B. B.* i, p. 250; *Gadow, Cat. B. M.* viii, p. 289; *Hume, S. F.* xi, p. 92.

Lanius hypoleucos, *Blyth, J. A. S. B.* xvii, p. 249 (1848); *id. Cat.* p. 152; *Blanf. Ibis,* 1870, p. 468; *Hume, S. F.* iii, p. 90.

*Hnet-beloo,* Burm.

*Coloration.* Forehead, lores, ear-coverts, and round the eyes blackish; crown, nape, and sides of the neck ashy, paling posteriorly; back, rump, scapulars, and upper tail-coverts chestnut; wing-coverts brown, edged with ferruginous; tertiaries the same; primaries and secondaries dark brown, narrowly edged on the outer webs with whitish; the inner webs of all white at the base; the fifth to tenth primaries also with a white spot on the outer web near the base; the outermost pair of tail-feathers white with black shafts; the next white, with a large black patch on the inner web; the others black, tipped with white; under wing-coverts mixed black and white; lower plumage pale fulvous.

Iris pale reddish brown; eyelids plumbeous; bill black; the gape and the greater portion of the lower mandible flesh-colour; mouth flesh-colour; legs plumbeous; claws horn-colour.

Length 8; tail 4; wing 3·5; tarsus 1; bill from gape ·8.

In this species the colour of the crown and nape varies from dark to pale ashy. In many birds the base of the forehead and the lores are white, a feature which is neither seasonal nor sexual but probably due to age. The nestling has the head fulvous and the back rufous, both parts cross-barred with dark brown; the lower plumage is barred with wavy brown lines.

*Distribution.* The Eastern portion of the Empire from Manipur through Burma as far south as Amherst and the Thoungyeen valley in Tenasserim. Wardlaw Ramsay observed this species in Karennee. It is in some measure a migrant, but its movements are probably of limited extent. I have examined specimens of it killed in Burma in every month in the year except May. It is, however, very rare from March to June and very common at other times, and it probably breeds in the mountainous and less-known parts of Burma east of the Salween river.

### 475. **Lanius nigriceps.** *The Black-headed Shrike.*

Collurio nigriceps, *Franklin, P. Z. S.* 1831, p. 117; *Hume, N. & E.* p. 172.

Lanius nigriceps (*Frankl.*), *Blyth, Cat.* p. 151; *Horsf. & M. Cat.* i, p. 166; *Jerd. B. I.* i, p. 404; *Anders. Yunnan Exped., Aves*, p. 644; *Hume & Dav. S. F.* vi, p. 202: *Cripps, S. F.* vii, p. 268; *Hume, Cat.* no. 259; *Scully, S. F.* viii, p. 264; *Gadow, Cat. B. M.* viii, p. 268; *Barnes, Birds Bom.* p. 144; *Hume, S. F.* xi, p. 89; *Oates in Hume's N. & E.* 2nd ed. i, p. 315.

Lanius nasutus (*Scop.*), *apud Oates, B. B.* i, p. 248.

*Sakrik-pho*, Lepch.

*Coloration.* Forehead, crown, nape, hind neck, lores, and sides of the head and neck black; upper part of the back ashy; remainder of back, rump, upper tail-coverts, and scapulars chestnut; wing-coverts black; quills dark brown, the tertiaries broadly, the other quills narrowly, margined with rufous; a white patch at the base of the primaries; tail-feathers black, more broadly tipped and margined with rufous from the middle pair to the outer pair, the two outer pairs frequently suffused with rufous and the outer webs entirely of this colour; cheeks, chin, and throat white, blending softly into the pale rufous of the breast; middle of the abdomen albescent; remainder of lower plumage rather bright rufous.

The young are barred both above and below with brown.

Iris dull reddish brown; eyelids pinkish plumbeous; bill dark horny black; the base of the lower mandible and the gape fleshy plumbeous; mouth flesh-colour; legs dark brown; claws black.

Length nearly 10; tail 5; wing 3·8; tarsus 1·2; bill from gape 1.

The plumage of this species is very variable, especially with regard to the extent and depth of tint of the grey on the back. The reader is referred to Hume's excellent summary of the plumage of this Shrike for full particulars. The name *L. nasutus*, Scop., by which I designated this species in the 'Birds of Burmah,' appears to be applicable to the race from the Philippine Islands only, in which the grey of the back is very fully developed.

*Distribution.* The Himalayas from Garhwál to Assam up to about 5000 feet; the plains of India east of a line drawn from Garhwál through Etáwah, Raipur, and Goomsur, from which latter place Jerdon records this species; Assam and the whole of the tract south of this province down to Tenasserim, where Davison procured specimens at various localities as far south as Kyikto near Moulmein.

This species extends into Siam and Cochin China.

*Habits, &c.* Breeds from May to September, constructing a nest in bushes, hedges, and trees. The eggs, usually four in number, measure about ·92 by ·75.

### 476. **Lanius erythronotus.** *The Rufous-backed Shrike.*

Collurio erythronotus, *Vigors, P. Z. S.* 1831, p. 42; *Gould, Cent.* pl. 12, fig. 2; *Hume, N. & E.* p. 167.

Lanius caniceps, *Blyth, J. A. S. B.* xv, p. 302 (1846); *id. Cat.* p. 151; *Horsf. & M. Cat.* i, p. 164; *Hume, S. F.* vii, p. 374; *Legge, Birds Ceyl.* p. 383; *Hume, Cat.* no. 257 bis; *Davison, S. F.* x, p. 364; *Gadow, Cat. B. M.* viii, p. 265.

Collyrio caniceps (*Blyth*), *Hume, N. & E.* p. 169.

Lanius erythronotus (*Vigors*), *Blyth, Cat.* p. 151; *Horsf. & M. Cat.* i, p. 164; *Jerd. B. I.* i, p. 402; *Godw.-Aust. J. A. S. B.* xxxix, pt. ii, p. 268; *Hume & Henders. Lah. to Yark.* pp. 166, 182; *Ball, S. F.* vii, p. 209; *Hume, Cat.* no. 257; *Biddulph, Ibis,* 1881, p. 51; *Scully, Ibis,* 1881, p. 433; *Gadow, Cat. B. M.* viii, p. 263; *Barnes, Birds Bom.* p. 143; *Oates in Hume's N. & E.* 2nd ed. i, p. 318.

Lanius affinis, *Legge, S. F.* iv, p. 243 (1876).

*Mattiya latora, Kajala latora,* Hind.; *Yerra belinchi,* Tel.

*Coloration.* Forehead and a broad band through the eye to the ear-coverts deep black; crown, nape, sides of neck, hind neck, and upper back clear pale grey; scapulars, lower back, rump, and upper tail-coverts ferruginous; wing-coverts black, the larger series tipped with pale rufous; quills blackish, the primaries narrowly, the others broadly, edged with pale rufous; the middle three pairs of tail-feathers black with rufous tips; the others brown with broader tips; chin, throat, and upper breast white; remainder of lower plumage rufous, more or less albescent on the middle of the abdomen.

Iris dark brown; bill black; legs and feet brownish black (*Butler*).

Length about 10; tail 4·7; wing 3·6; tarsus 1·1; bill from gape ·9.

The amount of rufous on the back and scapulars varies very much in this species, but not according to locality. Some Himalayan birds have the entire back and scapulars rufous. The majority of the birds from Southern India have the upper back grey and the scapulars merely tinged with rufous. Between these two extremes there is a connected series of specimens, and some birds from Sind and Oudh are absolutely identical with others from Ceylon. I am quite unable therefore to recognize two species based on the colour of the back and scapulars, and I can discover no other character by which the southern race *L. caniceps* may be separated from *L. erythronotus*.

*L. schach* from China resembles *L. erythronotus*, but is much larger, the black of the forehead extends back to the eyes and is sharply defined from the grey.

*L. bentet* from Sumatra, Java, &c., is also an allied species in which the black of the forehead is produced far back over the crown and blends with the grey of the nape.

*L. fuscatus* from Southern China has the greater part of the head, wings, and tail black and the remainder of the plumage dark brown.

*Distribution*. The whole of India proper from Kashmir to Cape Comorin and from Sind to Bengal; also Ceylon. The furthest point east to which this species extends appears to be Mymensing, where Godwin-Austen met with it.

This Shrike is apparently a permanent resident in most parts of the plains and the lower ranges of the Himalayas, but in summer it visits Gilgit and the higher ranges up to 6000 or 7000 feet. It extends to Baluchistan, Afghanistan, and Turkistan, probably as a summer visitor only to the latter country.

*Habits, &c.* Breeds throughout India from March to September. The nest and eggs are similar to those of the preceding species and the latter measure about ·92 by ·71.

### 477. **Lanius tephronotus.** *The Grey-backed Shrike.*

Collurio tephronotus, *Vigors, P. Z. S.* 1831, p. 43; *Hume, N. & E.* p. 171.

Lanius tephronotus (*Vigors*), *Blyth, Cat.* p. 151; *Horsf. & M. Cat.* i, p. 166; *Jerd. B. I.* i, p. 403; *Blanf. J. A. S. B.* xli, pt. ii, p. 47; *Anders. Yunnan Exped., Aves*, p. 643; *Hume & Dav. S. F.* vi, p. 202; *Cripps, S. F.* vii, p. 267; *Hume, S. F.* vii, p. 374; *id. Cat.*

no. 258; *Scully, S. F.* viii, p. 264; *Gadow, Cat. B. M.* viii, p. 260; *Oates, B. B.* i, p. 249; *Hume, S. F.* xi, p. 88; *Oates in Hume's N. & E.* 2nd ed. i, p. 325.

*Bhadraya,* Nep. Hills; *Bagaha tentha,* Nep. plains; *Sakrik-pho,* Lepch.; *Totem,* Bhut.

*Coloration.* Forehead and a broad band through the eye to the ear-coverts deep black; crown, nape, hind neck, back, scapulars, and lesser wing-coverts dark bluish grey; rump and upper tail-coverts chestnut; tail dark brown, obsoletely cross-rayed and the feathers margined with rufous; median and greater coverts, secondaries and tertiaries blackish, broadly margined with pale rufous; primary-coverts and primaries blackish, very narrowly margined with rufous; chin, throat, upper breast, and middle of abdomen white; remainder of lower plumage ferruginous.

Birds with signs of immaturity about them, such as bars, have the whole upper plumage suffused with rufous.

Nestlings have the upper plumage rufous barred with black; the eye-band barely indicated; throat whitish; lower plumage rufous barred with black.

Bill black; base of lower mandible yellowish horny; iris dark brown; feet and claws black (*Scully*).

Length 9·5; tail 5; wing 4·2; tarsus 1·1; bill from gape 1.

*Distribution.* A winter visitor to the Himalayas between the Sutlej valley and Assam, to the plains of Bengal and Assam, the hill-tracts south of the Brahmaputra, Manipur, Cachar, Tipperah, and Burma, extending down to about Pahpoon on the Salween river. I failed to meet with this species in Pegu, but Blyth records it from Arrakan. In summer this Shrike appears to ascend the Himalayas, to breed from 5000 to 9000 feet, or even higher, and to penetrate into Tibet and Western China.

*Habits, &c.* A nest found at Bhim Tal in Kumaun, on the 28th May, by Colonel G. F. L. Marshall contained five eggs, and was in a bush about three feet from the ground. There is little that is trustworthy on record about the nidification of this Shrike.

### 478. **Lanius collurio.** *The Red-backed Shrike.*

Lanius collurio, *Linn. Syst. Nat.* i, p. 136 (1766); *Butler, S. F.* iii, p. 463; *Hume, Cat.* no. 260 bis; *Scully, Ibis,* 1881, p. 435; *Gadow, Cat. B. M.* viii, p. 286; *Barnes, Birds Bom.* p. 145.

Enneoctonus collurio, *Blyth, Cat.* p. 153.

*Coloration.* Feathers at the base of the upper mandible and a broad band through the eye to the end of the ear-coverts black; forehead, crown, nape, hind neck, rump, and upper tail-coverts bluish grey; back, scapulars, and the visible portions of the wing-coverts dull chestnut; quills and primary-coverts dark brown margined with pale rufous; the tertiaries almost entirely rufous with pale margins; the four middle tail-feathers black; the others two thirds white, then black and tipped white; lower plumage white, tinged with pink on the breast and abdomen.

The nestling is rufous above and pale fulvous below, finely and closely barred with black or dark brown.

Iris dark; legs and feet black; bill black, pale at base of lower mandible (*Butler*).

Length about 7·5; tail 3·2; wing 3·6; tarsus ·95; bill from gape ·8.

*Distribution.* This Shrike was obtained by Colonel Butler at Deesa in Northern Guzerat in September. Dr. Scully states that it occurs in Gilgit during the autumn migration, and he observed it in that district in September and November. It has not been recorded from any other portion of the Empire.

In summer this Shrike is found in Turkestan, and westwards to Europe. In winter it extends to South Africa*.

### 479. **Lanius isabellinus.** *The Pale-brown Shrike.*

Lanius isabellinus, *Ehrenb. Symb. Phys., Aves*, fol. e, note (1828); *Wald. Ibis*, 1867, p. 224, *partim.*; *Hume, Cat.* no. 262; *Gadow, Cat. B. M.* viii, p. 277; *Scully, Ibis*, 1881, p. 433; *Barnes, Birds Bom.* p. 146.

Lanius arenarius, *Blyth, J. A. S. B.* xv, p. 304 (1846); *Jerd. B. I.* i, p. 407; *Wald. Ibis*, 1867, p. 223; *Hume & Henders. Lah. to Yark.* p. 183, pl. iii; *Hume, S. F.* i, p. 174; *Butler, S. F.* iii, p. 464; *Scully, S. F.* iv, p. 137.

*Coloration.* Crown, nape, hind neck, back, scapulars, upper rump, and lesser wing-coverts ashy brown with a tinge of rufous; forehead pale rufous; lower rump and upper tail-coverts rather bright rufous; tail dull rufous; feathers at base of upper mandible, lores, and eyebrow fulvous-white; a spot in front of the eye and the ear-coverts black; entire lower plumage pale fulvous, tinged with rosy buff on the flanks in freshly moulted birds; wings brown edged with fulvous, the primaries with a white spot at base barely visible beyond the primary-coverts.

The young is pale fulvous, the upper plumage closely barred with black and the lower with some wavy cross-bars.

Iris dark brown; bill dark brown, horny flesh-colour below except tip of lower mandible; legs and feet slaty black (*Butler*).

Length 7·5; tail 3·4; wing 3·6; tarsus ·9; bill from gape ·85.

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* *Lanius auriculatus*, P. L. S. Müll., has been recorded from Daulatpur in Sind by Mr. Murray, but under circumstances which render it somewhat doubtful whether the specimen said to have been procured at that place was really shot there. Hume (*S. F.* vii, p. 115) and Blanford (*S. F.* vii, p. 526) have discussed the question, and the reader is referred to their remarks. I shall content myself with describing the specimen referred to as having been procured in Sind. It is a fully adult bird, and is contained in the Hume Collection.

Forehead and lores white; anterior half of crown and a broad band through the eye to the end of the ear-coverts black; remainder of crown and nape chestnut; sides of neck and the back black; upper rump ashy; lower rump, upper tail-coverts, and scapulars white; wings black, with a large white patch on the primaries; tail white at base, then black and tipped white; lower plumage white.

Length about 7·5; tail 3·3; wing 4; tarsus ·9; bill from gape ·85.

Some birds, apparently adult, have the ear-coverts brown. This character does not, however, appear to be sexual.

*Distribution.* A winter visitor to the north-west portion of the Empire, where it is found from August or September to March. This species has been observed as far east as Mughal Sarai, near Benares, and south to Cutch, Kattywar, Seoni, and Raipur.

In winter it extends to Afghanistan, Persia, Arabia, and portions of north-east Africa. In summer it is found in Turkestan and Kashghar, where it breeds.

### 480. **Lanius phœnicuroides.** *The Rufous Shrike.*

Lanius isabellinus (*Hempr. & Ehrenb.*), *apud Walden, Ibis,* 1867, p. 224 *partim*, pl. v, fig. 1.

Lanius phœnicuroides, *Severtz. Journ. für Orn.* 1873, p. 347 (descr. nulla); *Scully, Ibis,* 1881, p. 434; *Gadow, Cat. B. M.* viii, p. 278.

*Coloration.* Resembles *L. isabellinus.* Differs in having the crown distinctly rufous and the back ashy brown, the two parts contrasting; the supercilium very distinctly defined and pure white; the lores entirely deep black and the band through the eye extending to above the eye; the white patch on the primaries larger and projecting distinctly beyond the primary-coverts for about one fifth of an inch.

Of the same size as *L. isabellinus.*

*Distribution.* A specimen of this species obtained by Dr. Gould at Hyderabad, in Sind, is figured by Lord Walden (*l. c.*). Scully informs us that he observed this species in Gilgit during the autumn migration, and Biddulph procured it at the same place in September and October.

Outside our limits this species appears to have much the same distribution as *L. isabellinus.*

*L. speculigerus* has occurred at Kandahar and may be found hereafter in the Punjab or Sind. From *L. isabellinus* it differs in having the whole of the lores deep black and from *L. phœnicuroides* in having the white wing-patch extremely large and projecting quite one third of an inch beyond the primary-coverts. These three species of rufous-tailed Shrikes are very distinct, and it is not difficult to separate them.

### 481. **Lanius cristatus.** *The Brown Shrike.*

Lanius cristatus, *Linn. Syst. Nat.* i, p. 134; *Jerd. B. I.* i, p. 406; *Wald. Ibis,* 1867, p. 212; *Hume, N. & E.* p. 175; *id. & Henders. Lah. to Yark.* p 182: *Butler, S. F.* iii, p. 464; *Anders. Yunnan Exped., Aves,* p. 645; *Legge, Birds Ceyl.* p. 377; *Hume, Cat.* no. 261; *Gadow, Cat. B. M.* viii, p. 271; *Oates, B. B.* i, p. 252; *Barnes, Birds Bom.* p. 145; *Hume, S. F.* xi, p. 92; *Oates in Hume's N. & E.* 2nd ed. i, p. 326.

Lanius phœnicurus, *Pall. Reis. Russ. Reichs,* iii, p. 693 (1776); *Wald. Ibis,* 1867, p. 216, pl. v, fig. 2.

Enneoctonus cristatus (*Linn.*), *Horsf. & M. Cat.* i, p. 167.

*Kákháti*, Beng.; *Kher Khetta*, Hind.; *Batti gadu, Batti-kiriti-gadu,* Tel.; *Hnet-beloo,* Burm.

*Coloration.* Forehead and a well-defined supercilium white, more or less pure according to age; upper plumage and lesser wing-coverts reddish brown, purer and brighter red on the crown, nape, and sides of the neck; median and greater coverts and quills dark brown margined with rufous; tail reddish brown with pale tips; cheeks, chin, and throat white; remainder of lower plumage fulvous.

Perfect adults have no bars on either the upper or the lower plumage, but such unbarred birds are comparatively rare; the majority have traces of bars on the breast and flanks. Nestlings are profusely barred with dark brown on every portion of the plumage and the eye-band is brown. It takes two or more years for this bird to attain mature plumage.

The upper mandible in front of the nostrils and the tip of the lower dark horn; remainder of the bill pale bluish; mouth flesh-colour; iris dark brown; eyelids plumbeous; legs bluish brown; claws black.

Length about 7·5; tail 3·5; wing 3·4; tarsus 1; bill from gape ·9.

*Distribution.* A winter visitor to the whole of the Empire except that portion lying to the west of a line roughly drawn from the Sutlej valley to Mount Abu; Ceylon; the Andamans.

Although a winter visitor to India, there is evidence to show that this Shrike in some cases remains in portions of the Empire throughout the year. There are numerous specimens in the Hume Collection killed in the Andamans throughout the summer months. There is also in the British Museum a young bird killed at Ahmednagar in the Bombay Presidency on the 19th August which looks as if it had been bred in India. The nest of this species has not yet been discovered within our limits, but it may not improbably be found on the higher ranges of the Himalayas, if not in some portions of the plains.

In winter this Shrike is also found in Cochin China and Siam, the Malay peninsula and Southern China. In summer it is spread over Tibet, Mongolia, and portions of Siberia.

*L. superciliosus* is closely allied to the present species, but it has the forehead and supercilium white, very plainly defined from the other parts of the head, and the whole upper plumage a rich chestnut. Hume is of opinion that this species is merely a stage of *L. cristatus*, but it appears to me to be a very distinct species confined to Japan, China, and the Malay peninsula and never found even in Burma.

### 482. **Lanius lucionensis.** *The Philippine Shrike.*

Lanius lucionensis, *Linn. Syst. Nat.* i, p. 135 (1766); *Wald. Ibis*, 1867, p. 215; *Hume, S. F.* ii, p. 199; *Wald. Trans. Z. S.* ix, p. 171, pl. xxix, fig. 1; *Hume & Dav. S. F.* vi, p. 205; *Legge, Birds Ceyl.* p. 378, note; *Hume, Cat.* no. 261 bis; *Oates, B. B.* i, p. 251; *Gadow, Cat. B. M.* viii, p. 274.

*Coloration.* The forehead and a distinct supercilium greyish white; the feathers immediately at the base of the upper mandible, the lores, and a broad streak passing through the eyes and covering the ear-coverts black; the whole upper plumage and scapulars greyish brown, tinged with rufous on the rump and upper tail-coverts; tail brown, tinged with rufous and tipped paler; chin, throat, and sides of neck white; remainder of lower plumage pale buff; the coverts and the wing dark brown, each feather edged with rufous, more broadly so on the tertiaries than elsewhere.

The young have the upper plumage brown closely barred with black, and the lower plumage yellowish or buffy white; all the feathers except those on the chin, throat, middle of breast, and abdomen barred with dark brown.

Legs and feet dull leaden blue; the upper mandible horny brown, edged whitish near the gape; the terminal third of the lower mandible horny brown; the basal two thirds bluish or fleshy white; irides brown (*Davison*).

Length 8; tail 3·6; wing 3·5; tarsus 1; bill from gape ·9.

*Distribution.* The Andamans and Nicobars; the extreme southern part of Tenasserim; the Mergui Islands. In the Andamans this Shrike appears to be a permanent resident, for in the Hume Collection are specimens killed in these islands in almost every month of the year. It is said to have occurred in Ceylon.

In winter this species is found in the Malay peninsula and the Philippine Islands, and it passes the summer in Northern China.

### 483. **Lanius tigrinus.** *The Thick-billed Shrike.*

Lanius tigrinus, *Drapiez, Dict. Class. Hist. Nat.* xiii, p. 523 (1828); *Blyth, Cat.* p. 152; *Gadow, Cat. B. M.* viii, p. 289.
Lanius magnirostris, *Lesson, Voy. Bélanger*, p. 251 (1834); *Wald. Ibis*, 1867, p. 220, pl. vi, 1871, p. 173; *Hume & Dav. S. F.* vi, p. 203; *Hume, Cat.* no. 260 quat.; *Oates, B. B.* i. p. 253.
Enneoctonus tigrinus (*Drap.*), *Horsf. & M. Cat.* i, p. 168.

*Coloration.* The whole head above, nape, sides of neck, and a portion of the upper back grey; the forehead, lores, and a broad band covering the eye and ear-coverts black; back, rump, and upper tail-coverts, the scapulars, and the lesser and median wing-coverts chestnut, barred across with black; greater wing-coverts and tertiaries dull chestnut, dusky interiorly and tipped pale; primaries and secondaries brown, edged narrowly with rufous; tail reddish brown, all but the middle pair of feathers tipped with white; the whole tail obsoletely barred across, and with a darker bar in front of the white tips; the entire lower plumage creamy white, a small portion of the flanks near the thighs barred with brown.

The young have the whole upper plumage, including the head, reddish brown closely barred with black; and the whole lower plumage, except the throat and the middle of the breast and abdomen, is barred with dark brown; there is no black stripe on the side of the head, the whole of that part being fulvous speckled and mottled with brown; the quills and tail are the same as in the adult.

Birds in adult plumage are comparatively rare, but are met with at all seasons of the year. The majority of birds of both sexes are in various stages of immature plumage, showing that the adult plumage is not assumed under two or three years.

Legs and feet pale plumbeous blue, lavender-blue, sometimes almost smalt-blue; irides brown; edges of eyelids black; more or less of both mandibles pale plumbeous or pale dull blue (*Hume & Davison*).

Length 6·8; tail 3; wing 3·2; tarsus ·85; bill from gape ·9.

*Distribution.* The extreme southern part of Tenasserim.

This species occurs in winter in the Malay peninsula, Sumatra, and Siam, and it breeds in China.

## Genus **HEMIPUS**, Hodgs., 1845.

The genus *Hemipus* contains three species, two of which are found within our limits and one in the Malay peninsula.

These birds have the habits of Flycatchers, catching their insect prey entirely in the air, and generally perching on the summits of high trees.

In *Hemipus* the sexes differ in colour. The bill is about half the length of the head, very much depressed and rather wide, the nostrils nearly hidden by hairs. The wing is pointed and the tail graduated. The plumage is a mixture of black or brown with white

### *Key to the Species.*

| | |
|---|---|
| *a.* Head and back glossy black | *H. picatus* ♂, p. 471. |
| *b.* Head glossy black, back brown | *H. capitalis* ♂, p. 472. |
| *c.* Head and back brown | *H. picatus* ♀, p. 471.<br>*H. capitalis* ♀, p. 472. |

### 484. **Hemipus picatus.** *The Black-backed Pied Shrike.*

Muscicapa picata, *Sykes, P. Z. S.* 1832, p. 85.

Hemipus picatus (*Sykes*), *Blyth, Cat.* p. 154; *Horsf. & M. Cat.* i, p. 136; *Jerd. B. I.* i, p. 412; *Hume, N. & E.* p. 178; *id. S. F.* i, p. 435, iii, p. 93; *Sharpe, Cat. B. M.* iii, p. 307; *Legge, Birds Ceyl.* p. 375; *Hume & Dav. S. F.* vi, p. 207; *Ball, S. F.* vii, p. 210; *Hume, Cat.* no. 267; *Davison, S. F.* x, p. 365; *Oates, B. B.* i, p. 258; *Barnes, Birds Bom.* p. 148; *Hume, S. F.* xi, p. 93; *Oates in Hume's N. & E.* 2nd ed. i, p. 327.

*The Little Pied Shrike*, Jerd.; *Viyum-pho*, Lepch.

*Coloration. Male.* The upper plumage with the lores and ear-coverts glossy brown; the rump-feathers broadly tipped with white; chin, vent, and under tail-coverts pure white; the remainder of the lower plumage pale vinaceous; cheeks and sides of the neck white, produced so as to form an indistinct white collar round the neck; lesser wing-coverts black; median coverts black, broadly tipped with white; the outer greater coverts black; the inner ones white on the outer and black on the inner webs; primary-coverts and all the quills black; the later secondaries broadly edged with white; tail black, all but the middle feathers tipped with white, the white on the outermost feathers extending over the whole outer web.

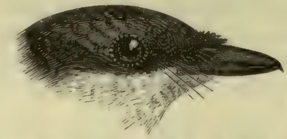

Fig. 140.—Head of *H. picatus.*

*Female.* Similar to the male, but the black is replaced by sooty brown.

The young resemble the female, but have the upper plumage barred with rufous and the wing-coverts mottled with brown.

Bill black; inside of the mouth bluish black; iris hazel; eyelids plumbeous; legs plumbeous brown; claws dark brown.

Length 5·4; tail 2·4; wing 2·5; tarsus ·45; bill from gape ·7.

*Distribution.* The Sátpura hills and the whole of Western India from Mahableshwar to Cape Comorin; Mysore; Ceylon; the Oudh and Sikhim terais; Chutia Nágpur; Tipperah; Manipur; Karennee; the whole of Burma to the extreme south of Tenasserim. This species extends to Siam and Cochin China.

*Habits, &c.* A nest found by Davison at Ootacamund in March was a small shallow cup made of grass and roots, and covered with cobwebs and lichens. It was placed in the branch of a tree and contained three eggs, which were pale green marked with umber-brown, and measured ·69 by ·49.

### 485. **Hemipus capitalis.** *The Brown-backed Pied Shrike.*

Muscicapa capitalis, *McClelland, P. Z. S.* 1839, p. 157.
Hemipus capitalis (*McClell.*), *Blyth, Cat.* p. 154; *Godw.-Aust. J. A S. B.* xxxix, pt. ii, p. 99; *Sharpe, Cat. B. M.* iii, p. 306; *Hume & Dav. S. F.* vi, p. 208; *Hume, Cat.* no. 267 A; *Anders. Yunnan Exped., Aves,* p. 647; *Oates in Hume's N. & E.* 2nd ed. i, p. 328.

*Coloration.* Resembles *H. picatus.* The male differs from the male of that species in having the back, scapulars, and rump smoky brown. The females of the two species are undistinguishable.

Of the same size as *H. picatus.*

*Distribution.* The Himalayas from Garhwál to Assam; the hill-tracts of Assam down to Manipur; the Kakhyen hills east of Bhamo.

The difference in the colour of the back of *H. picatus* and *H. capitalis* is correlated with different areas of distribution, and the two species appear to be perfectly distinct.

*Habits, &c.* Breeds in Sikhim from May to August, constructing a shallow nest of fine grass coated with cobwebs and bits of leaves in small trees. The eggs, apparently always two in number, are greenish white marked with brown and measure about ·65 by ·53.[*]

## Genus **TEPHRODORNIS**, Swains., 1831.

The genus *Tephrodornis* contains a few arboreal Shrikes of a grey colour. They are more or less gregarious, occurring in small bands of from four to six individuals, more rarely in pairs, and they never descend to the ground, nor do they catch insects on the wing. These Wood-Shrikes search the leaves of trees and they are only found in forests or in well-wooded localities.

In *Tephrodornis* the bill is very strong and about three quarters the length of the head, strongly hooked and notched; the nasal bristles or hairs are very numerous and entirely conceal the nostrils; the wing is blunt; the tail short and square and the feet feeble. The feathers of the rump are exceedingly ample and their shafts are soft. In one Indian species the sexes are alike, in two others slightly different. All three species are resident.

### *Key to the Species.*

| | |
|---|---|
| *a.* Tail almost entirely brown; wing considerably over 4 inches. | |
| *a'.* Head grey; back ashy brown .......... | *T. pelvicus*, p. 473. |
| *b'.* Head and back uniform bluish ashy .... | *T. sylvicola*, p. 474. |
| *b.* Outer tail-feathers white; wing considerably under 4 inches .......................... | *T. pondicerianus*, p. 475. |

### 486. **Tephrodornis pelvicus.** *The Nepal Wood-Shrike.*

Tentheca pelvica, *Hodgs. Ind. Rev.* i, p. 447 (1837).

Tephrodornis pelvica (*Hodgs.*), *Blyth, Cat.* p. 153; *Horsf. & M. Cat.* i, p. 171; *Jerd. B. I.* i, p. 409; *Blanf. J. A. S. B.* xli, pt. ii, p. 156; *Hume, S. F.* iii, p. 92; *Sharpe, Cat. B. M.* iii, p. 276; *Hume & Dav. S. F.* vi, p. 205; *Hume, Cat.* no. 263; *Oates, B. B.* i, p. 256; *Hume, S. F.* xi, p. 93; *Oates, in Hume's N. & E.* 2nd ed. i, p. 330.

*Ramnun-pho, Rabrun-pho*, Lepch.

*Coloration. Male.* Forehead, crown, and nape ashy grey; back, scapulars, and lesser wing-coverts ashy brown; rump ashy brown, tipped with white and obscurely barred with brown; the shorter upper tail-coverts white, the longer ones ashy brown; tail ashy brown with a rufous tinge, all the feathers narrowly tipped with whitish; the shafts reddish brown; greater wing-coverts ashy brown, edged brighter; quills ashy brown with rufous shafts, all edged and tipped brighter; nasal plumes, lores, ear-coverts, and feathers under the eye black; under this black a broad white streak; lower plumage cinereous, tinged with buff on the breast and becoming albescent on the abdomen; vent and under tail-coverts pure white.

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[*] Blyth gives *Hemipus obscurus*, Horsf., from Mergui (Birds Burm. p. 122). He gives no authority for the occurrence of this species in Tenasserim, and probably accepted the statement on insufficient grounds. This Pied Shrike, so far as is known, occurs no further north than Malacca, and it is unlikely to occur in Tenasserim, where Davison failed to meet with it. I shall therefore not include it in this work, but I give a short description of the bird in order that it may be identified if met with.

*Male.* The wings, tail, and the whole upper plumage black, except the shorter upper tail-coverts and the tips of the rump-feathers, which are white; the whole lower plumage and cheeks white, tinged with grey on the breast.

*Female.* Brown wherever the male is black.

Length about 6; tail 2·2; wing 2·6; tarsus ·45; bill from gape ·8.

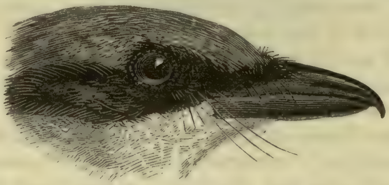

Fig. 141.—Head of *T. pelvicus.*

*Female.* The forehead, crown, and nape of the same colour as the back; band through the eye pale brown; otherwise not differing from the male.

The young resemble the adult female, but have the margins of all the feathers of the upper plumage whitish, forming cross bars.

In the male the bill is black; eyelids dark plumbeous; iris yellowish brown; legs plumbeous brown; claws dark horn-colour. In the female the bill is brown; the gape and the base of both mandibles flesh-coloured.

Length 8·5; tail 3·5; wing 4·5; tarsus ·85; bill from gape 1·2.

*Distribution.* The Himalayas from Nepal to Assam up to about 4000 feet; the whole of the hill-tracts of Assam ranging south throughout the whole of Burma and Karennee.

This species probably extends down the Malay peninsula for some distance, but the point where it meets the allied *T. gularis* is not known. It is found in Siam and China.

*T. gularis* differs from *T. pelvicus*, so far as the adult males are concerned, in having the crown and back of the same deep bluish ashy and the tail nearly black. The former runs very close to *T. sylvicola.*

*Habits, &c.* A nest of this species found in Sikhim at 3000 feet was a massive cup made of tendrils of creepers and stems of plants and decorated with the flower-stems of grasses. It was obtained in April and contained four eggs, white marked with yellowish brown and measuring about ·93 by ·73.

### 487. **Tephrodornis sylvicola.** *The Malabar Wood-Shrike.*

Tephrodornis sylvicola, *Jerdon, Madr. Journ. L. S.* x, p. 236 (1839); *Blyth, Cat.* p. 153; *Jerd. B. I.* i, p. 409; *Sharpe, Cat. B. M.* iii, p. 277; *Hume, Cat.* no. 264; *Davison, S. F.* x, p. 365; *Barnes, Birds Bom.* p. 147; *Oates in Hume's N. & E.* 2nd ed. i, p. 331.

*Phari latora,* Hind.

*Coloration. Male.* Nasal plumes, lores, and a broad band round the eye to the ear-coverts black; forehead, crown, nape, hind neck, and back bluish ashy; rump, scapulars, and lesser wing-coverts brown tinged with ashy; a band of white on the lower rump; upper tail-coverts dark brown; wings, tail, median and greater wing-coverts brown; lower plumage pale vinaceous, turning to pure white on the lower abdomen, flanks, and under tail-coverts.

*Female.* Differs from the male in having hardly any tinge of ashy on the upper plumage and in having the eye-band brown.

Bill and claws black; legs and feet dark plumbeous; iris oil- or greenish yellow (*Davison*).

Length about 8·5; tail 3·3; wing 4·4; tarsus ·75; bill from gape 1·2.

*Distribution.* The western coast of India from Belgaum to Travancore. This species ascends the Nilgiris and other hill-ranges up to about 5500 feet.

*Habits, &c.* Breeds in Mysore in April. A nest found in that state was composed of roots and fibres woven into a shallow cup and covered with cobwebs and lichens, and was placed in a tree. The eggs, two in number, were white marked with blackish brown and inky-purple and measured ·98 by ·73.

### 488. **Tephrodornis pondicerianus.** *The Common Wood-Shrike.*

Muscicapa pondiceriana, *Gmel. Syst. Nat.* i, p. 939 (1788).
Tephrodornis affinis, *Blyth, J. A. S. B.* xvi, p. 473 (1847); *id. Cat.* p. 153; *Hume, S. F.* i, p. 434; *Sharpe, Cat. B. M.* iii, p. 276.
Tephrodornis pondiceriana (*Gm.*), *Blyth, Cat.* p. 153; *Horsf. & M. Cat.* i, p. 169; *Jerd. B. I.* i, p. 410; *Hume, N. & E.* p. 176; *Sharpe, Cat. B. M.* iii, p. 275; *Anders. Yunnan, Exped., Aves,* p. 646; *Legge, Birds Ceyl.* p. 372; *Hume, Cat.* no. 265; *Oates, B. B.* i, p. 254; *Barnes, Birds Bom.* p. 147; *Oates in Hume's N. & E.* 2nd ed. i, p. 332.

*Coloration.* The whole upper plumage with the lesser wing-coverts ashy brown, the rump-feathers tipped with white; upper tail-coverts dark brown; a broad supercilium white, tinged with rufous; lores, cheeks, and feathers under the eye dark brown; lower plumage ashy, whiter on the throat and abdomen and darker on the flanks; under tail-coverts white; wings, with the median and greater coverts, ashy brown, each feather very narrowly edged paler; the two outer pairs of tail-feathers white, the bases brown and with a brown patch near the tip; the remaining feathers entirely dark brown, the median feathers tinged with ashy.

The nestling is banded with rufous above and slightly mottled with brown below.

Bill dark horn-colour; inside of mouth flesh-colour; eyelids plumbeous; iris yellowish brown; legs and feet dark plumbeous brown; claws dark horn-colour.

Length about 6·5; tail 2·7; wing 3·3; tarsus ·75; bill from gape ·88.

The plumage of this species varies considerably in different parts of its range, especially with reference to the depth of colour and the extent and purity of the white of the supercilium.

*Distribution.* This species is found over nearly the whole Empire in suitable localities, but does not ascend the Himalayas to any great height. It is also found in Ceylon. It appears to be absent from the whole of Tenasserim, and the Sittoung river is probably its eastern limit in Burma.

*Habits, &c.* Breeds from February to June according to locality, constructing a very beautiful nest of vegetable fibres and roots thickly coated with cobwebs and bits of bark on a branch of a tree. The eggs, usually three in number, are white marked with various shades of purple and brown and measure about ·75 by ·61.

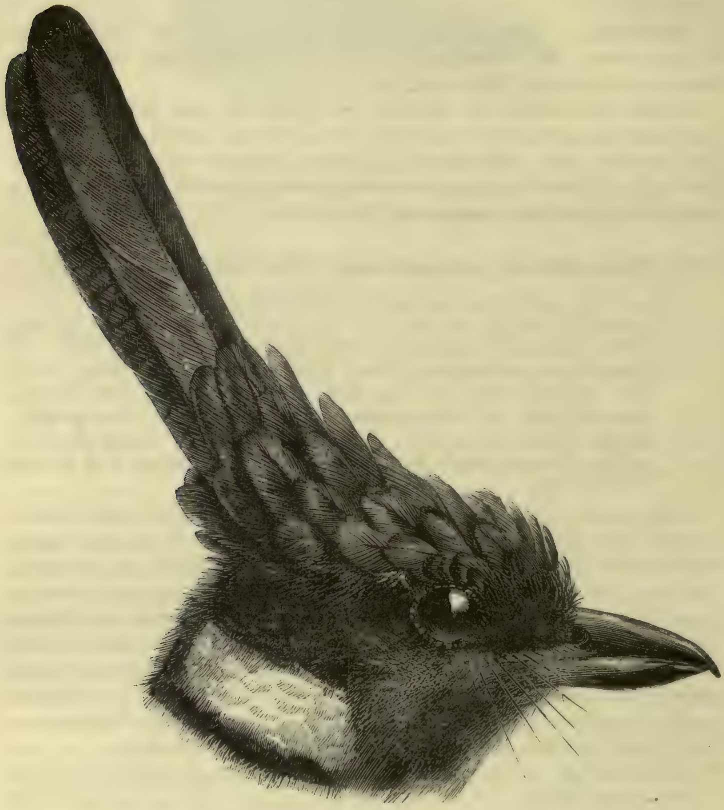

Fig. 142.—Head of *P. ardesiacus*

## Genus **PLATYLOPHUS**, Swains., 1831.

The genus *Platylophus* contains a few species of birds which are characterized by a remarkable crest of long broad feathers several inches in length. One species is found within our limits and others further south.

In *Platylophus* the bill is very strong, about three quarters the length of the head, strongly curved, notched, laterally compressed, and deep; the nostrils are concealed by numerous close-set hairs; the wing is very rounded and the tail ample and well graduated; the tarsus is short and stout. The sexes are alike.

### 489. **Platylophus ardesiacus.** *The Jay-Shrike.*

Lophocitta ardesiaca, *Cabanis, Mus. Hein.* i, p. 219 (1850).
Platylophus galericulatus, *partim, Elliot, Ibis,* 1878, p. 54.
Platylophus ardesiacus (*Cab.*), *Sharpe, Cat. B. M.* iii, p. 317; *Hume & Dav. S. F.* vi, p. 380; *Hume, Cat.* no. 668 ter; *Oates, B. B.* i, p. 410.

*Coloration.* The whole head, crest, and neck very dark brown, almost black; a large white patch on each side of the neck, the two nearly meeting behind; a spot of white on the upper eyelid and another on the lower behind the centre of the eye; upper plumage and the exposed parts of the closed wings and tail rufescent olive-brown; lower plumage varying from dark slaty brown to dark olive-brown.

The young have the lower plumage barred with black and white and the feathers of the upper plumage tipped and margined with rufous.

Legs, feet, claws and bill black; eyelid dark brownish black; iris reddish brown, varying from rhubarb-brown to litharge-red (*Hume & Davison*).

Length about 11; tail 5; wing 5·5; tarsus 1·3; bill from gape 1·35.

*Distribution.* The extreme south of Tenasserim. This species extends down the Malay peninsula, but is replaced in Sumatra by *P. coronatus*, a rufous-brown species, and in Java by *P. galericulatus*, a black species.

*Habits, &c.* Inhabits evergreen forest, restless, always on the move and strictly arboreal. Note, a sharp metallic rattle. Generally found in pairs.

## Genus **PERICROCOTUS**, Boie, 1826.

The genus *Pericrocotus* contains an assemblage of species, the majority of which are of very brilliant plumage, scarlet and yellow being the predominant colours. They are found only in India and Eastern Asia.

The birds of this genus are remarkable for the stiffened shafts of the feathers of the rump. This character is shared by the next two genera. In the larger species these stiffened shafts can easily be felt by the fingers, but in the smaller species the rigidity of the shafts is ascertained with difficulty although always present.

Some of the Minivets are migratory, but their migrations appear to be of limited extent, with the exception of two or three species which wander according to season from China, and even Japan, down to Singapore and the Islands.

In *Pericrocotus* the bill is half the length of the head, strong, hooked and notched; the nostrils are concealed by plumes; the wing is long and pointed, the tail greatly graduated, and the feet weak. In all the species the sexes are very differently coloured except in two, in which the colours are very dull and the difference between the sexes comparatively trivial.

The young bird resembles the female in general distribution of colours, but the whole upper plumage is barred with white, each bar being preceded by a black or brown line.

The Minivets are strictly arboreal, going about in small flocks and searching the leaves and branches of trees for insects.

*Key to the Species.*

- *a*. Tail black and red; upper tail-coverts red.
  - *a*′ Crown and back glossy black.
    - *a*″. Tertiaries with isolated red oval drops.
      - *a*‴. First two primaries entirely black.
        - $a^4$. Tail exceeding 4 inches ...... *P. speciosus* ♂, p. 479.
        - $b^4$. Tail not exceeding 3·5 inches.. *P. fraterculus* ♂, p. 481.
      - *b*‴. First three primaries entirely black.
        - $c^4$. Middle pair of tail-feathers entirely, or nearly entirely, black. *P. andamanensis* ♂, p. 481.
        - $d^4$. Middle pair of tail-feathers with the outer webs red.......... *P. flammifer* ♂, p. 482.
      - *c*‴ First four primaries entirely black. *P. flammeus* ♂, p. 482.
    - *b*″. Tertiaries with no isolated red oval drops.
      - *d*‴. Under wing-coverts and axillaries crimson.
        - $e^4$. Tail about 4 inches; black of throat and red of breast meeting in a straight line ........ *P. brevirostris* ♂, p. 483.
        - $f^4$. Tail about 3·5 inches; black of throat encroaching on red of breast in a rounded form .... *P. neglectus* ♂, p. 484.
      - *e*‴. Under wing-coverts and axillaries yellow...................... *P. igneus* ♂, p. 484.
  - *b*′. Crown and back ashy or grey; never black.
    - *c*″. Wing considerably over 3 inches.
      - *f*‴. Lower plumage bright scarlet.. *P. solaris* ♂, p. 485.
      - *g*‴. Lower plumage rosy red ...... *P. roseus* ♂, p. 486.
    - *d*″. Wing not exceeding 3 inches.
      - *h*‴. Lower plumage variegated; throat grey to black; breast scarlet .................... *P. peregrinus* ♂, p. 487.
      - *i*‴ Lower plumage entirely of one colour.
        - $g^4$. Lower plumage pale yellow .. *P. peregrinus* ♀, p. 487.
        - $h^4$. Lower plumage bright yellow. *P. igneus* ♀, p. 484.
- *b*. Tail black and yellow; upper tail-coverts yellow.

c'. Tertiaries with isolated yellow oval drops.
  e''. First three primaries plain.
    k'''. Tail exceeding 4 inches ...... *P. speciosus* ♀, p. 479.
    l'''. Tail not exceeding 3·5 inches .. *P. fraterculus* ♀, p. 481.
  f''. First four primaries plain.
    m'''. Forehead and lower plumage orange-yellow.
      $i^4$. Tail about 3·6 inches ........ *P. andamanensis* ♀, p. 481.
      $k^4$. Tail about 3·1 inches ........ *P. flammifer* ♀, p. 482.
    n'''. Forehead and lower plumage pure yellow ................ *P. flammeus* ♀, p. 482.
d'. Tertiaries with no isolated yellow oval drops.
  g''. Crown of head not concolorous with lower back.................. *P. solaris* ♀, p. 485.
  h''. Crown of head concolorous with back.
    o'''. Rump and upper tail-coverts pure deep yellow.
      $l^4$. Tail about 4 inches ........ *P. brevirostris* ♀, p. 483.
      $m^4$. Tail about 3·5 inches ...... *P. neglectus* ♀, p. 484.
    p'''. Rump and upper tail-coverts olive-yellow margined with yellow. *P. roseus* ♀, p. 486.
c. Tail black and white; upper tail-coverts grey, brown, or black.
  e'. Rump red, or white marked with red.
    i''. Dark parts of upper plumage glossy black.
      q'''. Forehead and chin black ...... *P. erythropygius* ♂, p. 488.
      r'''. Forehead and chin white...... *P. albifrons* ♂, p. 489.
    k''. Dark parts of upper plumage smoky brown.
      s'''. Rump uniformly orange-red .. *P. erythropygius* ♀, p. 488
      t'''. Rump white with a few red streaks ..................... *P. albifrons* ♀, p. 489.
  f'. Rump without a trace of red.
    l''. Back and rump the same colour.. *P. cinereus*, p. 489.
    m''. Rump conspicuously paler than back ........................ *P. cantonensis*, p. 490.

The males and females of the first five species are characterized by the presence of oval drops on the tertiaries.

### 490. **Pericrocotus speciosus.** *The Indian Scarlet Minivet.*

Turdus speciosus, *Lath. Ind. Orn.* i, p. 363 (1790).
Phœnicornis elegans, *McClell. P. Z. S.* 1839, p. 156.
Pericrocotus speciosus (*Lath.*), *Blyth, Cat.* p. 192; *Horsf. & M. Cat.* i, p. 143; *Jerd. B. I.* i, p. 419; *Hume, N. & E.* p. 182; *Sharpe, S. F.* iv, p. 206; *Hume, S. F.* v, p. 192; *Ball, S. F.* v, p. 414, vii, p. 210; *Sharpe, Cat. B. M.* iv, p. 71; *Hume, Cat.* no. 271; *Scully, S. F.* viii, p. 268; *Barnes, Birds Bom.* p. 151; *Oates in Hume's N. & E.* 2nd ed. i, p. 335.
Pericrocotus elegans (*McClell.*), *apud Anders. Yunnan Exped., Aves,* p. 648.

*The Large Minivet,* Jerd.; *Sahili, Sath suki kapi,* Hind.

*Coloration. Male.* The whole head, back, scapulars, and lesser coverts glossy black; lower surface from behind the throat, rump, upper tail-coverts, and under wing-coverts scarlet; greater coverts black, very broadly tipped with scarlet; primaries black with a band of scarlet across all but the first two; secondaries scarlet at the base and black elsewhere; each of the later secondaries with a scarlet oval drop near the extremity of the outer web; tail scarlet, except the middle pair of feathers and the bases of the others, which are black.

*Female.* Forehead, paling posteriorly up to the crown of the head, the sides of the head, and the whole lower plumage yellow; rump and upper tail-coverts yellow tinged with green; back of the head, back, scapulars, and lesser coverts deep grey; greater coverts blackish tipped with grey; primaries dark brown, with a band of yellow across all but the first three; secondaries dark brown, the bases of all bright yellow; the later secondaries with an oval yellow spot near the tips of the outer webs; tertiaries plain dark brown; middle tail-feathers black; the next pair black, with the terminal half of the outer web yellow; remaining feathers yellow with the bases black.

Bill and legs black; iris brown (*Hume Coll.*).

Length about 9; tail 4·3; wing 4·15; tarsus ·8; bill from gape ·95.

The third primary in this species is sometimes entirely black, and in the same way the middle pair of tail-feathers are occasionally slightly margined with scarlet.

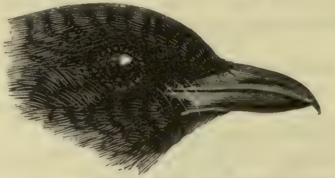

Fig. 143.—Head of *P. speciosus.*

*Distribution.* The Himalayas from the Sutlej valley to the extreme eastern part of Assam up to elevations of 5000 or 6000 feet; the N.W. Provinces and Oudh; Chutia Nágpur and the Central Provinces as far south as Bastar and Jeypore; Bengal; Assam and all the hill-ranges southwards to Manipur and extending to the Kakhyen hills east of Bhamo. Fea recently procured this bird in Karennee.

This species overlaps the range of the next in the hill-tracts of Assam and Northern Burma, but there is no evidence to show that the two species interbreed, nor have I seen any specimen which could not be with certainty assigned to one or the other.

*Habits, &c.* According to Hodgson *P. speciosus* commences to breed in April and constructs a beautiful cup-shaped nest of moss and moss-roots coated with lichens and spiders' webs in a slender branch of a tree. Some eggs of this bird found by Hutton are described as being greyish white marked with yellowish brown and inky purple and measuring ·9 by ·72.

The next species has usually been identified with McClelland's *Pericrocotus elegans* from Assam. His type, however, which is still preserved in the British Museum, is clearly referable to *P. speciosus*.

### 491. **Pericrocotus fraterculus.** *The Burmese Scarlet Minivet.*

Pericrocotus rutilus, *Gould, teste Gray, Hand-list,* i, p. 335, "Pegu" (1869, descr. nulla).

Pericrocotus elegans, *McClell., apud Hume, S. F.* iii, p. 95; *Sharpe, S. F.* iv, p. 206; *Hume, S. F.* v, p 194; *Hume & Dav. S. F.* vi, p. 211; *Sharpe, Cat. B. M.* iv, p. 73; *Hume, Cat.* no. 271 ter; *Oates, B. B.* i, p. 236.

Pericrocotus fraterculus, *Swinhoe, Ibis,* 1870, p. 244.

Pericrocotus speciosus (*Lath.*), *apud Blyth & Wald. Birds Burm.* p. 123.

*Hnet-mintha,* Burm.

*Coloration.* Resembles *P. speciosus.* The male differs in having both wing and tail constantly smaller, and in the outer webs of the middle pair of tail-feathers being as a rule, but not always, entirely red. The females merely differ in size.

Bill and legs black; inside of mouth flesh-colour; iris dark brown; eyelids grey; claws dark horn.

Length about 8; tail 3·4; wing 3·7; tarsus ·75; bill from gape ·9.

*Distribution.* The most northern locality from which I have been able to examine a specimen of this bird is Tippuk in Assam. I have also seen specimens from the Khási hills and Manipur. Thence the present species is spread over the whole of Burma to the extreme south of Tenasserim, and extends into Siam and China.

### 492. **Pericrocotus andamanensis.** *The Andamanese Scarlet Minivet.*

Pericrocotus andamanensis, *Tytler, Beavan, Ibis,* 1867, p. 322; *Walden, Ibis,* 1873, p. 309; *Hume, S. F.* ii, p. 208; *id. S. F.* v, p. 195; *id. Cat.* no. 271 bis; *Sharpe, Cat. B. M.* iv, p. 73.

*Coloration.* Resembles *P. speciosus.* The male differs in having the first three primaries entirely black. The female differs in having the first four primaries entirely blackish and the forehead and entire lower plumage orange-yellow, not pure yellow. This species is also considerably smaller than *P. speciosus.*

Iris dark brown; bill and feet black (*Wardlaw Ramsay*).

Length nearly 8; tail 3·5; wing 3·6; tarsus ·65; bill from gape ·9.

*Distribution.* The Andamans.

### 493. Pericrocotus flammifer. *Davison's Scarlet Minivet.*

Pericrocotus flammifer, *Hume, S. F.* iii, p. 321 note (1875); v, p. 195; *Hume & Dav. S. F.* vi, pp. 211, 508; *Hume, Cat.* no. 273 quat.; *Sharpe, Cat. B. M.* iv, p. 74; *Oates, B. B.* i, p. 237.

*Coloration.* Resembles *P. speciosus.* The male differs from the male of that species in having the first three primaries entirely black and the outer webs of the middle pair of tail-feathers red; also in being much smaller. From the male of *P. andamanensis* it differs only in the colour of the tail and its smaller size.

The female differs from the female of *P. speciosus* in having the first four primaries plain brown, and the forehead and lower plumage orange-yellow. From the female of *P. andamanensis* merely in size.

Length rather more than 7; tail 3·1; wing 3·4; tarsus ·65; bill from gape ·85.

*Distribution.* Tenasserim from Nwalabo mountain southwards, extending into the Malay peninsula.

### 494. Pericrocotus flammeus. *The Orange Minivet.*

Muscicapa flammea, *Forster, Ind. Zool.* p. 25 (1781).
Pericrocotus flammeus (*Forst.*), *Blyth, Cat.* p. 192; *Horsf. & M. Cat.* i, p. 142; *Jerd. B. I.* i, p. 420; *Hume, N. & E.* p. 182; *Sharpe, S. F.* iv, p. 208; *Hume, S. F.* iv, p. 394, v, p. 197; *id. Cat.* no. 272; *Legge, Birds Ceyl.* p. 363; *Sharpe, Cat. B. M.* iv, p. 75; *Davison, S. F.* x, p. 366; *Barnes, Birds Bom.* p. 151; *Oates in Hume's N. & E.* 2nd ed. i, p. 336.

*Phari balal-chasm,* Hind.; *Suli sangam* (♂), *Arsan buradi* (♀) of the Halapyks (Jerd.); *Gene-kurula,* Ceyl.

*Coloration.* Resembles *P. speciosus.* The male differs from the male of that species in having the red parts of the plumage somewhat paler and flame-coloured; also in having the first four primaries unmarked with red except in rare instances, when a mere line of red may be seen on the fourth primary. The female differs from the female of *P. speciosus* in having the first four primaries unmarked with yellow.

Bill, legs, and feet black; iris dark brown (*Hume Coll.*).

Length nearly 8; tail 3·7; wing 3·6; tarsus ·6; bill from gape ·8.

*Distribution.* The Western Ghâts of India from Khandála to Cape Comorin. This species is found both at the base of the Ghâts and at considerable elevations, Davison recording it even from Ootacamund, where, however, it appears to be rare. It extends into Ceylon. Godwin-Austen, probably by an oversight, records this bird from the Khási hills (J. A. S. B. xxxix, pt. ii, p. 99).

*Habits, &c.* Breeds on the Nilgiris from June to September, constructing a cup-shaped nest in a branch at a considerable height from the ground. The nest is composed of the finest little twigs and coated over externally with lichens. The eggs are pale sea-green marked with pale yellowish brown and appear to measure about ·9 by ·67.

*P. xanthogaster* from Sumatra and Borneo and *P. exsul* from Java belong to this section of the Minivets.

### 495. **Pericrocotus brevirostris.** *The Short-billed Minivet.*

Muscipeta brevirostris, *Vigors, P. Z. S.* 1831, p. 43.
Phœnicornis brevirostris (*Vigors*), *Gould, Cent.* pl. 8.
Pericrocotus brevirostris (*Vigors*), *Blyth, Cat.* p. 193; *Horsf. & M. Cat.* i, p. 141; *Jerd. B. I.* i, p. 421; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 27; *Henders. & Hume, Lah. to Yark.* p. 184; *Hume, N. & E.* p. 183; *Sharpe, S. F.* iv, p. 209; *Hume, S. F.* v, p. 187; *Hume & Dav. S. F.* vi, p. 211; *Anders. Yunnan Exped., Aves,* p. 648; *Hume, Cat.* no. 273; *Scully, S. F.* viii, p. 268; *Sharpe, Cat. B. M.* iv, p. 79; *Scully, Ibis,* 1881, p. 435; *Oates, B. B.* i, p. 240; *Barnes, Birds Bom.* p. 152; *Hume, S. F.* xi, p. 96; *Oates in Hume's N. & E.* 2nd ed. i, p. 337.

*Coloration. Male.* The whole head, back, scapulars, lesser wing-coverts, sides of the head, and throat glossy black; entire lower surface, rump, and upper tail-coverts crimson; greater coverts black, tipped with crimson; primaries black, all except the first four with a crimson patch upon them; secondaries crimson on the basal half and black on the terminal half; tertiaries wholly black; middle tail-feathers black; the next pair black with the greater portion of the outer web red; the others all red, except at the bases, where they are black.

*Female.* Forehead, rump, upper tail-coverts, and all the lower plumage yellow; ear-coverts greyish yellow; crown of the head, back, and scapulars ashy green; lesser wing-coverts brown, edged with green; median and greater coverts brown, tipped with yellow; wing brown, marked with yellow in the same manner as the male is marked with red; tail also as in the male, the red being replaced by yellow.

Bill and legs black; irides dark brown (*Jerdon*).

Length about 7·5; tail 4; wing 3·5; tarsus ·6; bill from gape ·75.

The intensity of the colouring of this species varies much according to locality. Specimens from Sikhim and Assam and the tract of country reaching down to Tenasserim are a deep crimson, whereas skins from more western countries are a dull scarlet.

*Distribution.* The Himalayas from Murree and Gilgit to Assam, up to 10,000 feet of elevation; the plains of India from the foot of the Himalayas to about the twentieth degree of north latitude, with the exception apparently of Sind, Cutch, and Kattywar. From Assam *P. brevirostris* ranges southwards through the hill-tracts as far as Karennee on the one side and to Arrakan, according to Blyth, on the other. I did not procure this species in Pegu, but a specimen obtained by Davison in the pine-forests of the Salween river, and now in the British Museum, is referable to it.

To the east of India this bird extends into China and on the west to Afghanistan.

*P. brevirostris* is said by many writers to be migratory and to be found in the Himalayas in summer and in the plains in winter. Scully, however, distinctly states that this species is found in Gilgit in the winter, and he also observes that it is common in the valley of Nepal throughout the year. The alleged migratory habits of the bird therefore require confirmation.

*Habits, &c.* Breeds in the Himalayas in May and June, constructing a cup-shaped nest of fine twigs, grass, &c., covered with cobwebs and lichens, on a tolerably high branch of some tree. The eggs, three to five in number, are whitish marked with red and purple and measure about ·75 by ·58.

*P. miniatus* from Java differs from *P. brevirostris* in having the greater wing-coverts entirely black.

### 496. **Pericrocotus neglectus.** *Hume's Minivet.*

Pericrocotus neglectus, *Hume, S. F.* v, pp. 171, 189 (1877); *Hume & Dav. S. F.* vi, p. 211; *Hume, Cat.* no. 273 ter; *Sharpe, Cat. B. M.* iv, p. 80; *Oates, B. B.* i, p. 241, note.

Pericrocotus pulcherrimus, *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 515 (1887), p. 580 (1888).

*Coloration.* Resembles the deep, richly coloured, eastern form of *P. brevirostris.* The tail of both sexes is, however, very much shorter, and in the male of *P. neglectus* the black of the throat reaches much further down the neck.

Length about 6·5; tail, ♂ 3·5, ♀ 3·2; wing 3·3; tarsus ·55; bill from gape ·75.

I would not recognize this species were it not for its isolated habitat and for its very short tail, as compared with the tail of *P. brevirostris* from all parts of India. Hume insists that the female of *P. neglectus* is of a wholly different type from the female of *P. brevirostris*; but I cannot agree with him on this point, the females of the two species appearing to me to be of precisely the same colour. He also states (S. F. xi, p. 96) that *P. neglectus* is very common in Manipur. I can discover no skins of this species from that State in the series of *Pericrocotus* in the Hume Collection now in the British Museum. If *P. neglectus* does occur in Manipur, the main reason for separating it from *P. brevirostris*, viz. the different areas of distribution of the two species, disappears.

I have compared the types of *P. pulcherrimus* with the types of *P. neglectus*, and find them to be the same species.

*Distribution.* The slopes of Muleyit mountain, in Tenasserim, where this species was procured by both Davison and Fea.

### 497. **Pericrocotus igneus.** *The Fiery Minivet.*

Pericrocotus igneus, *Blyth, J. A. S. B.* xv, p. 309 (1846); *id. Cat.* p. 193; *Sharpe, S. F.* iv, p. 209; *Hume, S. F.* v, p. 190; *id. Cat.*

no. 273 bis; *Sharpe, Cat. B. M.* iv, p. 78; *Hume & Dav. S. F.* vi, p. 211; *Oates, B. B.* i, p. 239.
Pericrocotus minutus, *Strickland, Jard. Contr. Orn.* 1849, p. 94, pl. 32.
Pericrocotus flagrans, *Boie, Bonap. Consp. Av.* i, p. 357 (1850).

*Coloration. Male.* The whole head, chin, throat, back, scapulars, and lesser wing-coverts glossy black; the remainder of the lower plumage, the rump, and upper tail-coverts crimson; greater coverts black, tipped with crimson; primaries black, all but the first four with scarlet marks across them; secondaries black, with orange bases; tertiaries wholly black; under wing-coverts and axillaries yellow; middle tail-feathers black; the next pair black, with some red at the tip; the remaining feathers red, except the bases, which are black.

*Female.* The forehead, feathers round the eye, the under wing-coverts, and all the lower plumage bright yellow; crown of the head, back, wing-coverts, and scapulars ashy, tinged with green; rump and upper tail-coverts bright scarlet; wing as in the male, the scarlet being replaced by orange-yellow; tail as in the male, but the red paler.

Bill, legs, and feet black (*Hume Coll.*).

Length 6·5; tail 3; wing 3; tarsus ·6; bill from gape ·7.

*Distribution.* The extreme south of Tenasserim, extending down the Malay peninsula to Sumatra, Borneo, and Palawan; also Western China.

*P. croceus*, Sharpe, recently described from Perak, differs from *P. igneus* in having the red in the male replaced by yellow.

*P. wrayi*, Sharpe, also from Perak, is of the *P. igneus* type; but the male has a brown throat, and the female has the upper plumage deep plumbeous, the throat white, and the ear-coverts deep grey.

### 498. **Pericrocotus solaris.** *The Yellow-throated Minivet.*

Pericrocotus solaris, *Blyth, J. A. S. B.* xv, p. 310 (1846); *id. Cat.* p. 193; *Horsf. & M. Cat.* i, p. 393; *Jerd. B. I.* i, p. 422; *Blanf. J. A. S. B.* xli, pt. ii, p. 47; *Sharpe, S. F.* iv, p. 210; *Hume, S. F.* v, p. 186; *Hume & Dav. S. F.* vi, p. 212; *Sharpe, Cat. B. M.* iv, p. 82; *Hume, Cat.* no. 274; *Oates, B. B.* i, p. 238; *Hume, S. F.* xi, p. 97.
Pericrocotus rubro-limbatus, *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 515 (1887), p. 582 (1888).

*Coloration. Male.* The lores, the whole upper part of the head, the neck, back, scapulars, and lesser wing-coverts leaden black; chin, cheeks, and ear-coverts grey; throat orange-yellow; remainder of the lower plumage, with the rump and upper tail-coverts, scarlet; greater coverts black, tipped with scarlet; primaries black, all but the first four with a red patch; secondaries and tertiaries black, with scarlet bases; middle tail-feathers black, the outer webs with a narrow red margin near the tip; the next pair black, the terminal two thirds of the outer web red, as also the tip of the inner web; the remaining tail-feathers red, with black bases.

*Female.* Head, neck, and upper back ashy; lower back tinged with green; rump and upper tail-coverts yellowish green; cheeks, ear-coverts, and chin light grey; the whole lower plumage bright yellow; lesser wing-coverts brown, edged with green; greater coverts brown, tipped with yellow; wings dark brown, the marks as in the male, but yellow instead of scarlet; tail similar to that of the male, but the scarlet replaced by yellow.

Bill, legs, feet, and claws black; iris deep brown (*Davison*).

Length about 7; tail 4; wing 3·4; tarsus ·6; bill from gape ·6.

*P. rubro-limbatus* of Salvadori, the type of which I have examined, is *P. solaris* with the middle tail-feathers narrowly margined with red. This red margin is not unfrequently present in specimens of *P. solaris* from Sikhim and other parts.

*P. griseigularis*, Gould, from China, resembles *P. solaris*, but has the throat grey and the upper plumage darker in colour.

*Distribution.* Nepal; Sikhim; the Buxa Doars; the Khási hills; Manipur; Pegu; the slopes of Muleyit mountain, in Tenasserim.

Blanford observed this bird in Sikhim at an elevation of 10,000 feet. I procured it in Pegu at the level of the sea.

### 499. **Pericrocotus roseus.** *The Rosy Minivet.*

Muscicapa rosea, *Vieill. Nouv. Dict. d'Hist. Nat.* xxi, p. 486 (1818).

Pericrocotus roseus (*Vieill.*), *Blyth, Cat.* p. 193; *Horsf. & M. Cat.* i, p. 141; *Jerd. B. I.* i, p. 422; *Hume, N. & E.* p. 184; *Sharpe, S. F.* iv, p. 210; *Hume, S. F.* v, p. 184; *Anders. Yunnan Exped., Aves*, p. 649; *Sharpe, Cat. B. M.* iv, p. 81; *Ball, S. F.* vii, p. 210; *Hume, Cat.* no. 275; *Oates, B. B.* i, p. 247; *Hume, S. F.* xi, p. 97; *Oates in Hume's N. & E.* 2nd ed. i, p. 338.

Pericrocotus intensior, *Hume, S. F.* v, p. 185 (1877).

*Coloration. Male.* Upper plumage ashy brown, darker on the head; the tips of the feathers on the rump and upper tail-coverts rosy red, varying in extent; wing-coverts dark brown, the greater ones tipped with scarlet; quills dark brown, all but the first four primaries with a scarlet patch across them; later secondaries and tertiaries brown, the outer webs partially margined with scarlet; sides of the head ashy; chin and throat whitish; remainder of lower plumage with axillaries and under wing-coverts rosy red; middle tail-feathers blackish, the others red with blackish bases.

*Female.* Dull brown above, and the rump olive-yellow margined with yellow and without a trace of red; the portions which are red in the male are in the female everywhere replaced by pale yellow; chin and throat dull yellowish white.

Bill, legs, and feet black; iris dark brown.

Length about 7; tail 3·5; wing 3·4; tarsus ·6; bill from gape ·75.

This species varies much in intensity of colouring according to locality. Birds from the north-west of India are the palest, and those from Tenasserim the richest in colour.

*Distribution.* The Himalayas, from Afghanistan to Assam, up to about 5000 feet; the N.W. Provinces, Oudh, and Bengal; Assam and its hill-ranges, extending down through Burma to Bassein, Rangoon, and Mergui.

The distribution of this species over the peninsula of India has not been ascertained with any degree of accuracy. Ball gives it, apparently with certainty, from Goomsur, Jeypore, and the Godávari valley. Jerdon records it from Malabar, and Lord A. Hay appears to have procured it in the hills dividing Tinnevelly from Travancore, as mentioned by Jerdon. I have seen no specimens collected in the localities recorded by Ball and Jerdon.

*Habits, &c.* Breeds in May and June, constructing a cup-shaped nest of very fine twigs and grass, coated with lichens and cobwebs, on a branch of a tree. The eggs are described as being greenish white, marked in various ways with brown and purple, and measuring about ·8 by ·6.

### 500. **Pericrocotus peregrinus.** *The Small Minivet.*

Parus peregrinus, *Linn. Syst. Nat.* i, p. 342 (1766).
Parus malabaricus, *Gm. Syst. Nat.* i, p. 1012 (1788); *Hume, S. F.* v, p. 182.
Phœnicornis peregrina (*Linn.*), *Gould, Cent.* pl. 9.
Pericrocotus peregrinus (*Linn.*), *Blyth, Cat.* p. 193; *Horsf. & M. Cat.* i, p. 140; *Jerd. B. I.* i, p. 423; *Hume, N. & E.* p. 184; *Hume, S. F.* i, p. 177, iii, p. 96; *Sharpe, S. F.* iv, p. 209; *Hume, S. F.* v, p. 179; *id. Cat.* no. 276; *Legge, Birds Ceyl.* p. 366; *Sharpe, Cat. B. M.* iv, p. 76; *Oates, B. B.* i, p. 245; *Barnes, Birds Bom.* p. 152; *Oates in Hume's N. & E.* 2nd ed. i, p. 339.

*Bulal-chasm*, Hind.; *Sath-sayili, Chota sath saki kapi*, Beng.; *Kunkum-pu-jitta*, Tel.; *Batugene Kurula, Kos-kurula*, Ceyl.

*Coloration. Male.* Forehead, crown, nape, hind neck, scapulars, and lesser wing-coverts pale to dark grey according to locality; rump and upper tail-coverts pale to deep scarlet; the two middle pairs of tail-feathers blackish, the others blackish with a gradually increasing red tip; chin, throat, fore neck, and sides of the head from dusky grey to black; breast scarlet; remainder of lower plumage varying from saffron to orange; wings brown to black, the first four or five primaries plain, the others and the secondaries with a median patch varying from pale red to scarlet.

*Female.* The grey of the upper parts is paler than in the male from the same locality; the sides of the head and the whole lower plumage white, more or less tinged with pale yellow; wing brown, with the wing-spot varying from yellow to pale orange; tail much as in the male.

Bill black; inside of mouth flesh-colour; legs, toes, and claws black.

Length about 6; tail 3; wing 2·65; tarsus ·6; bill from gape ·6.

The variations of colour in this species are very great, but are always a matter of degree and not of kind, and are correlated with he amount of rainfall. Specimens from the arid parts of Sind are the palest, and those from Southern India and the humid parts of Burma the darkest.

*Distribution.* Every part of India, except the extreme north-western portion of the Punjab, from Sind to Bengal, and from the foot of the Himalayas to Cape Comorin; Ceylon; the Andamans; Assam and the whole country to the east of the Bay of Bengal down to Tenasserim, where this species becomes rare or entirely disappears. It does not ascend the Himalayas nor any of the higher hill-ranges of Southern India.

It extends into Siam and Cochin China, is not yet known to occur in the Malay peninsula, but reappears in some of the larger islands such as Java and Borneo.

*Habits, &c.* Breeds from June to October, constructing a very similar nest to that of *P. roseus*, but very much smaller, on high branches of trees, and laying, as a rule, three eggs, which are greenish white marked with brownish red, and measure about ·67 by ·53.

### 501. **Pericrocotus erythropygius.** *The White-bellied Minivet.*

Muscicapa erythropygia, *Jerd. Madr. Journ. L. S.* xi, p. 17 (1840).
Pericrocotus erythropygius (*Jerd.*), *Blyth, Cat.* p. 193; *Jerd. B. I.* i, p. 424; *Blanf. J. A. S. B.* xxxviii, pt. ii, p. 174; *Stoliczka, J. A. S. B.* xli, pt. ii, p. 236; *Sharpe, S. F.* iv, p. 211; *Hume, S. F.* v, p. 177; *Ball, S. F.* vii, p. 211; *Sharpe, Cat. B. M.* iv, p. 85; *Hume, Cat.* no. 277; *Davison, S. F.* x, p. 366; *Barnes, Birds Bom.* p. 153; *Oates in Hume's N. & E.* 2nd ed. i, p. 344.

*Coloration. Male.* The whole head, chin, hind neck, back, scapulars, lesser, median, and primary coverts, upper tail-coverts, and the four middle tail-feathers black; the other tail-feathers black at base and white elsewhere, the amount of white increasing towards the outer feathers; throat and sides of neck white; rump and breast orange-red; remainder of lower plumage white; the greater wing-coverts white; quills black, all but the first four primaries with a white basal patch and some of the tertiaries broadly margined with white.

*Female.* The upper plumage, lores, and ear-coverts smoky brown; the rump orange-red; tail as in the male; wing as in the male, but the black replaced by dark brown; forehead and the whole lower plumage white.

Bill and legs black; iris brownish yellow (*Jerdon*).

Length about 6; tail 3; wing 2·6; tarsus ·55; bill from gape ·5.

*Distribution.* This species has an extensive distribution over the peninsula of India. It is found throughout Rajputana, Cutch, and Guzerat; and I have seen a specimen which was obtained at Makráni, in Sind. On the north I have examined specimens obtained at Umballa, Delhi, Agra, Etáwah, and Lálganj in Tirhoot. On the east, Ball records this bird from Lohardugga, Sirguja, and Sambalpur. It appears to be spread over all the central parts of

India, and to be found as far south as the Sigúr ghât in the Nilgiris, from which locality Jerdon has recorded it, and where Davison subsequently obtained it.

*Habits, &c.* Breeds in July and August, building its nest, which is very small, but of much the same character as those of the preceding species, in low bushes. The eggs, which are greenish white marked with brown, measure about ·7 by ·55.

### 502. **Pericrocotus albifrons.** *Jerdon's Minivet.*

Pericrocotus albifrons, *Jerd. Ibis,* 1862, p. 20; *Blanf. Ibis,* 1870, p. 468; *Blyth, Birds Burm.* p. 124; *Hume, S. F.* iii, p. 96; *Sharpe, S. F.* iv, p. 212; *Hume, S. F.* v, p. 178; *Sharpe, Cat. B. M.* iv, p. 86; *Hume, Cat.* no. 277 bis; *Oates, B. B.* i, p. 244.

*Coloration.* Resembles *P. erythropygius.* The male differs from the male of that species in having the forehead, a broad supercilium, and the whole chin with the sides of the head white; the rump is white merely tinged with red, and the orange on the breast is of smaller extent. The lores and a streak through the eye are black.

The female differs from the female of *P. erythropygius* merely in having a very slight trace of red on the rump, nothing more than two or three faint streaks.

Bill and legs black; iris dark brown; eyelids grey; inside of mouth flesh-colour.

Length about 6; tail 3·4; wing 2·5; tarsus ·6; bill from gape ·55.

*Distribution.* The Thayetmyo district of Burma, extending north as far as Pagán. Colonel Lloyd is said to have obtained this species at Toungngoo; but this locality requires confirmation.

### 503. **Pericrocotus cinereus.** *The Ashy Minivet.*

Pericrocotus cinereus, *Lafresn. Rev. Zool.* viii, p. 94 (1845); *Sharpe, S. F.* iv, p. 211; *Hume, S. F.* v, p. 175; *Sharpe, Cat. B. M.* iv, p. 83; *Oates, S. F.* x, p. 200; *id. B. B.* i, p. 241.
Pericrocotus modestus, *Strickl. P. Z. S.* 1846, p. 102.
Pericrocotus motacilloides, *Swinhoe, Ibis,* 1860, p. 58.

*Coloration. Male.* The feathers at the base of the lower mandible, lores, a band through the eye, ear-coverts, and the posterior half of the crown and nape black; forehead, anterior part of crown, chin, throat, cheeks, sides of neck, and the whole lower plumage white, tinged with ashy on the breast and flanks; upper plumage dark ashy; wing-coverts black edged with ashy; primary-coverts black; quills ashy brown, the earlier primaries with an inner white marginal band, the others and the secondaries with a white patch at base; the four middle tail-feathers blackish, the others blackish at base and white elsewhere, the white increasing in extent towards the outer feathers.

The female resembles the male, but has the white on the forehead much narrower and the black on the crown replaced by dark ashy of about the same shade as the back; the greater wing-coverts and tertiaries are narrowly tipped with white.

In females not quite adult the axillaries are pale yellow and the white on the wings is tinged with yellow.

The colour of the iris &c. does not appear to have been recorded.

Length about 8; tail 3·8; wing 3·8; tarsus ·55; bill from gape ·8.

*Distribution.* I procured this species at Kyeikpadein, near the town of Pegu, in February. It has not been recorded from any other part of the Empire.

It is found in China, and generally throughout Eastern Asia, the Malayan peninsula, Sumatra, Borneo, and the Philippine Islands. It appears to be a migratory species.

### 504. **Pericrocotus cantonensis.** *Swinhoe's Minivet.*

Pericrocotus cantonensis, *Swinhoe, Ibis,* 1861, p. 42; *Sharpe, S. F.* iv, p. 211; *Hume, S. F.* v, p. 177; *Sharpe, Cat. B. M.* iv, p. 84; *Oates, S. F.* x, p. 200; *id. B. B.* i, p. 243.

Pericrocotus sordidus, *Swinhoe, P. Z. S.* 1863, p. 284.

Pericrocotus immodestus, *Hume, S. F.* v, p. 177 (1877); *id. Cat.* no. 277 ter; *Bingham, S. F.* ix, p. 173.

Pericrocotus ? cinereus, *Lafresn. apud Hume & Dav. S. F.* vi, p. 212.

*Coloration. Male.* The forehead and anterior half of crown mingled white and brown; lores black; hinder part of crown and nape, back, scapulars, and wing-coverts dark ashy brown; rump and upper tail-coverts pale brown; greater wing-coverts tipped with white; wings dark brown, the secondaries with a whitish, half-concealed patch at base very indistinct; the two middle pairs of tail-feathers dark brown, the others brown at base, white elsewhere, the white increasing in extent towards the outer feathers; lower plumage pale earthy brown.

*Female.* Resembles the male closely, but has the crown and back a paler ashy brown and the wing-spot clearly indicated, well defined, and tinged with yellow.

Bill and legs black; inside of mouth flesh-colour; iris hazel (*Swinhoe*).

Length about 8; tail 3·7; wing 3·5; tarsus ·55; bill from gape ·75.

*Distribution.* Southern Pegu, where I procured this species in the cold weather near the town of Pegu; Tenasserim from Mergui southwards. Although Davison observed this bird only in Southern Tenasserim, there can be little doubt but that it occurs in the northern portion of this Division as well. Bingham obtained it in the Thoungyeen valley.

It is found throughout China, and is probably to some extent a migratory species.

## Genus **CAMPOPHAGA**, Vieill., 1816.

The genus *Campophaga* comprises a number of species the predominating colour of which is grey. The shafts of the rump-feathers are spinous as in *Pericrocotus* and the next genus.

In *Campophaga* the bill is comparatively weak, the tip being but slightly bent down and notched; the nostrils are nearly concealed by plumes; the wing is rather pointed, and the tail well graduated.

The Cuckoo-Shrikes of this genus are strictly arboreal, going about in small flocks and feeding on insects which they pick off leaves and branches. The sexes differ: in three species very slightly, in two very markedly.

### *Key to the Species.*

| | |
|---|---|
| *a.* Of larger size; wing exceeding 4·5 inches. | |
| *a′.* Grey of plumage ***at all ages*** dark bluish; under tail-coverts in adults concolorous with abdomen ........................ | *C. **melanoschista***, p. 491. |
| *b′.* Grey of plumage *at all ages* pale; under tail-coverts in adults white or albescent. | *C. melanoptera*, p. 492. |
| *b.* Of smaller size; wing barely exceeding 4 inches. | |
| *c′.* Supercilium absent or faintly indicated; wing about 4 inches. | |
| *a″.* Throat and abdomen in adult[*] uniform grey ............................ | *C. **neglecta***, p. 493. |
| *b″.* Throat in adult black, abdomen grey.. | *C. **sykesi*** ♂, p. 493. |
| *c″.* Throat and abdomen white, cross-barred with brown ........................ | *C. **sykesi*** ♀, p. 493. |
| *d′.* A conspicuous white supercilium at all ages; wing about 3·5 inches .......... | *C. **terat***, p. 495. |

The immature birds of the first three species here treated of resemble each other closely and pass through the same phases of plumage. In the nestling each feather of the upper plumage has a white terminal transverse bar preceded by a narrow black bar; the quills and coverts are tipped with whitish, and the whole lower plumage is closely barred with white; most of the primaries have each a white patch. The young are probably two or more years in attaining the adult plumage. This is effected by a gradual loss of the bars and of the spots on the primaries, perfectly plumaged adults losing both of these entirely. The female is much longer in passing through all the stages than the male, and perfectly adult females are rare.

### 505. **Campophaga melanoschista.** *The Dark-grey Cuckoo-Shrike.*

Volvocivora melaschistus, *Hodgs. Ind. Rev.* i, p. 328 (1837); *Jerd. B. I.* i, p. 415; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 202; *Hume, S. F.* v, p. 205; *Ball, S. F.* vii, p. 210; *Hume, Cat.* no. 269; *Scully, S. F.* viii, p. 266; *Barnes, Birds Bom.* p. 149.

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[*] I find it impossible to introduce the young of *C. neglecta* and *C. sykesi* into the Key. They vary so much.

Ceblepyris lugubris, *Sundev. Physiogr. Sällsk. Tidskr.* vol. i (1837–38); *id. A. M. N. H.* (1), xviii, p. 109 (1846).
Campophaga fimbriata (*Temm.*), *Blyth, Cat.* p. 191; *Horsf. & M. Cat.* i, p. 176.
Volvocivora melanura, *Hartl. J. f. O.* 1865, p. 162.
Campephaga lugubris (*Sundev.*), *Sharpe, Cat. B. M.* iv, p. 65.
Campophaga melanoschista (*Hodgs.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 345.

*Kabasi*, Beng.

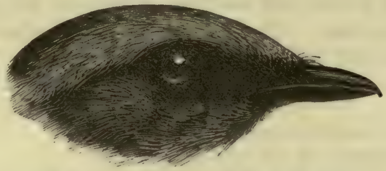

Fig. 144.—Head of *C. melanoschista.*

*Coloration. Male.* The whole plumage dark bluish grey; wings and tail black, the latter tipped with white.

*Female.* When fully adult similar to the male, but rather paler. Fully adult females are, however, seldom met with, the lower plumage generally showing traces of the cross bars of the young stage, the ear-coverts being frequently streaked with white and the edges of the eyelids more or less white. The under tail-coverts of the female are often paler than the abdomen, and birds in which this is the case might be confounded with *C. melanoptera* were it not for the general dark colour of the plumage.

Legs and feet plumbeous; bill black; iris dark brown (*Hume*).

Length about 9; tail 4·5; wing 4·7; tarsus ·8; bill from gape ·9.

No great variation takes place in this species throughout its extensive range, and it is unmistakably distinct at all ages from *C. melanoptera.*

*Distribution.* The Himalayas, from Murree to Dibrugarh in Assam up to 7000 feet; the plains of India from the Himalayas to about latitude 16°, except apparently in the Punjab, Sind, Rajputana, and Guzerat; the valley of Assam and the country south to about the latitude of Manipur. This species is said to be a summer visitor to the Himalayas and a winter visitor to the plains.

*Habits, &c.* Breeds in the Himalayas from April to July, constructing a small and shallow nest of fine twigs coated with cobwebs and lichens in a branch of a tree. The eggs, two or three in number, are greenish white marked with brown and purple, and measure about 1 by ·7.

### 506. **Campophaga melanoptera.** *The Pale-grey Cuckoo-Shrike.*

Ceblepyris melanoptera, *Rüpp. Mus. Senckenb.* iii, p. 25, tab. ii, fig. 1 (1839).
Campephaga melanoptera, *Blyth, J. A. S. B.* xv, p. 307 (1846); *id. Cat.* p. 191; *Sharpe, Cat. B. M.* iv, p. 67; *Oates, B. B.* i, p. 231.

Campophaga avensis, *Blyth, Cat.* p. 327 (1849).
Volvocivora saturata, *Swinhoe, Ibis,* 1870, p. 242.
Volvocivora avensis (*Blyth*), *Hume, S. F.* iii, p. 93, v, p. 205; *id. Cat.* no. 268 bis.
Volvocivora vidua (*Hartl.*), *apud Hume, S. F.* v, p. 206; *Hume & Dav. S. F.* vi, p. 508; *Hume, Cat.* no. 268 quint.
Volvocivora intermedia, *Hume, S. F.* v, p. 205 (1877); *id. Cat.* no. 269 bis.
Campophaga saturata (*Swinh.*), *Sharpe, Cat. B. M.* iv, p. 66; *Oates, B. B.* i, p. 230.
Campophaga innominata, *Oates, B. B.* i, p. 233 (1883).

*Coloration.* Resembles *C. melanoschista*, but has the plumage pale grey throughout, except the vent and under tail-coverts, which are white or albescent.

The young, in all stages of plumage, have the grey portions of the same pale tint as the adults.

Bill and legs black; iris hazel- or reddish-brown; eyelids plumbeous; inside of the mouth flesh-colour; claws horn-colour.

Of much the same size as *C. melanoschista*.

Some years ago I regarded *C. melanoptera*, *C. saturata*, and *C. innominata* as fairly distinguishable species, but now with the large series of these birds which is available for study I cannot separate them.

*Distribution.* The whole of Arrakan, Pegu, Karennee, and Tenasserim, extending into China and Siam. I have seen no specimen of this species from any locality south of Malawún.

### 507. **Campophaga neglecta.** *The Small Cuckoo-Shrike.*

Volvocivora neglecta, *Hume, S. F.* v, p. 203 (1877); *id. Cat.* no. 268 quat.; *Hume & Dav. S. F.* vi, p. 210; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 580.
Campophaga neglecta (*Hume*), *Sharpe, Cat. B. M.* iv, p. 68; *Oates, B. B.* i, p. 232.
Campophaga polioptera, *Sharpe, Cat. B. M.* iv, p. 69, pl. ii (1879).

*Coloration.* Resembles *C. melanoptera* but is very much smaller.

The colour of the iris &c. does not appear to have been recorded.

Length about 8; tail 3·5; wing 4; tarsus ·75; bill from gape ·8.

*Distribution.* Tenasserim south of Mergui, extending down the Malay peninsula as far as Salanga or Junk Ceylon and eastward into Cochin China.

An allied species found in the Malay peninsula is *C. culminata*, A. Hay, which differs in having the vent and under tail-coverts grey like the abdomen.

*C. fimbriata*, Temm., from Java differs from both the above in being of a blackish colour.

### 508. **Campophaga sykesi.** *The Black-headed Cuckoo-Shrike.*

Lalage sykesii, *Strickland, A. M. N. H.* (1) xiii, p. 36 (1844); *Horsf. & M. Cat.* i, p. 175; *Sharpe, Cat. B. M.* iv, p. 89; *Legge, Birds Ceyl.* p. 369.

Campephaga sykesi (*Strickl.*), *Blyth, Cat.* p. 191; *Oates, B. B.* i, p. 234; *id. in Hume's N. & E.* 2nd ed. i, p. 346.
Volvocivora sykesii (*Strickl.*), *Jerd. B. I.* i, p. 414; *Hume, N. & E.* p. 179; *Ball, S. F.* vii, p. 210; *Hume, Cat.* no. 268; *Davison, S. F.* x, p. 365; *Barnes, Birds Bom.* p. 148 *.

*Jungli Kasya*, Hind.; *Chinna akurayi*, Tel.

*Coloration. Male.* The head, neck, upper back, chin, throat, and upper breast black; lower breast and sides of the body grey; abdomen, vent, and lower tail-coverts white; back, scapulars, lesser wing-coverts, rump, and upper tail-coverts grey, the tail-coverts paler margined; median wing-coverts chiefly black, the tips and the terminal halves of the outer webs grey; greater coverts black narrowly margined with grey; primary-coverts all black; quills black, the primaries with a large patch of white on the inner webs and narrowly margined with white on the outer; the secondaries more broadly margined with white and tipped with the same; middle tail-feathers grey, the others black broadly tipped with white.

*Female.* The upper plumage, including the head, grey, becoming lighter on the rump and upper tail-coverts, which are cross-barred with dusky; cheeks, sides of neck, and the whole lower plumage whitish, closely and narrowly barred with black, the bars becoming obsolete on the abdomen; vent and under tail-coverts pure white; wing-coverts and quills dark brown, each feather margined with greyish white, and the inner web of each with a white patch as in the male; ear-coverts greyish mottled with brown and the shafts white; the middle pair of tail-feathers grey narrowly tipped with white, the others blackish brown broadly tipped with white.

In the young each feather of the upper plumage is tipped with a white band preceded by a black band, and the lower plumage is more closely barred than in the adult female. The young male changes into adult plumage in the first spring.

Iris brownish red; bill black; legs and feet black with slaty edges to the scales of the tarsi; claws black (*Legge*).

Length about 7·5; tail 3·3; wing 4; tarsus ·8; bill from gape ·85.

*Distribution.* The greater part of the peninsula of India from the foot of the Himalayas to Cape Comorin. The western limit appears to be a line drawn through Deesa, Abu, and Sámbhar. To the east this species has been found as far as the Bhutan Doars and Furreedpore in Eastern Bengal. In the British Museum there is a specimen collected in Assam by McClelland, and Blyth states that this species occurs in Upper Pegu. This statement has received no confirmation by any other collector in Pegu and must be accepted with reservation. This Cuckoo-Shrike occurs in Ceylon.

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* *Lalage melanothorax*, Sharpe (Cat. B. M. iv, p. 91), from Madras, has since been discovered to be an artificially constructed bird (P. Z. S. 1886, p. 354), the head and neck of a *Dicrurus ater* having been joined to the body of a *Campophaga sykesi*.

*C. sykesi* is said to be a migrant, but I cannot ascertain this to be a fact from the specimens I have examined. It possibly wanders about a good deal, and this may have led to the idea that it is migratory.

*Habits, &c.* Breeds from May to July, constructing a shallow saucer-like nest of fine twigs, bound together with cobwebs, in a fork of a tree. The eggs, usually three in number, are greenish white marked with pale brown and measure about ·83 by ·65.

### 509. **Campophaga terat.** *The Pied Cuckoo-Shrike.*

Turdus terat, *Bodd. Tabl. Pl. Enl.* p. 17 (pl. 273, fig. 2), (1783).
Turdus orientalis, *Gmel. Syst. Nat.* i, p. 821 (1788).
Lalage orientalis (*Gm.*), *Blyth, Cat.* p. 192; *Horsf. & M. Cat.* i, p. 175.
Lalage terat (*Bodd.*), *Hume, S. F.* i, p. 454, ii, p. 202; *Sharpe, Cat. B. M.* iv, p. 95; *Hume, Cat.* no. 269 ter*.
Campophaga terat (*Bodd.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 348.

*Coloration. Male.* The base of the forehead and a broad supercilium white; crown, nape, hind neck, lores, the upper part of the ear-coverts, the back, scapulars, and lesser wing-coverts glossy black; rump and upper tail-coverts grey, the latter with faint white cross bars; median and greater wing-coverts black broadly edged with white; quills black with a large white patch on the inner web of each; the secondaries and tertiaries edged with white on the outer web; tail black, the two outer pairs of feathers with broad white tips, the next pair more narrowly tipped with white; lower part of ear-coverts, sides of neck, and the whole lower plumage white, tinged with ashy on the breast and flanks, on which parts there are almost always faint traces of bars.

*Female.* The black portions of the plumage of the male are replaced by brown and the greater wing-coverts are merely tipped with white; the wings and tail are very dark brown; the whole lower plumage regularly barred with dark grey except the abdomen and under tail-coverts.

The nestling resembles the adult female, but every portion of the upper plumage is barred with pale grey, each bar preceded by a darker one; the lower plumage is densely streaked with brown, the streaks soon giving way to bars of the same colour.

Legs and feet black or plumbeous; soles yellowish horny; bill black; iris brown (*Hume*).

Length about 7; tail 2·8; wing 3·5; tarsus ·75; bill from gape ·8.

*Distribution.* The Nicobar Islands, where this species has been found on Camorta and Nancowry.

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* The name *Turdus dominicus* of P. L. S. Müller is doubtfully referable to this species and is, in any case, singularly inappropriate. I follow Sharpe in discarding this name in favour of Boddaert's.

This species is also found in the Malay peninsula, Sumatra, and other of the larger islands.

*Habits, &c.* The eggs are described by Hume as being greenish white marked with brown, olivaceous brown, and purplish grey, and as measuring about ·86 by ·62. The nest has not been described.

## Genus **GRAUCALUS**, Cuvier, 1817.

The genus *Graucalus* differs from *Campophaga* in having a very long pointed wing and a relatively more massive bill. The two Indian species are birds of comparatively large size. The sexes differ in colour. These birds are arboreal, frequenting only the well-wooded portions of the country or forests. They feed on insects which they pick off leaves and their notes are mellow and pleasant.

### *Key to the Species.*

| | |
|---|---|
| *a.* Tail broadly tipped with white | *G. macii*, p. 496. |
| *b.* Tail nearly entirely black | *G. dobsoni*, p. 497. |

### 510. **Graucalus macii.** *The Large Cuckoo-Shrike.*

Graucalus macei, *Less. Traité*, p. 349 (1831); *Blyth, Cat.* p. 190; *Horsf. & M. Cat.* i, p. 173; *Jerd. B. I.* i, p. 417; *Blanf. J. A. S. B.* xli, pt. ii, p. 156; *Hume, N. & E.* p. 181; *Hume, S. F.* ii, p. 204; *Ball, S. F.* ii, p. 400; *Anders. Yunnan Exped., Aves,* p. 647; *Legge, Birds Ceyl.* p. 360; *Sharpe, Cat. B. M.* iv, p. 34; *Hume, Cat.* no. 270; *Scully, S. F.* viii, p. 267; *Oates, B. B.* i, p. 228; *Barnes, Birds Bom.* p. 150; *Oates in Hume's N. & E.* 2nd ed. i, p. 348.

Graucalus layardi, *Blyth, Ibis,* 1866, p. 368; *Jerd. Ibis,* 1872, p. 117; *Hume, Cat.* no. 270 bis.

*Kasya,* Hind.; *Kabasi,* Beng.; *Pedda akurai,* Tel.; *Talling-pho,* Lepch.

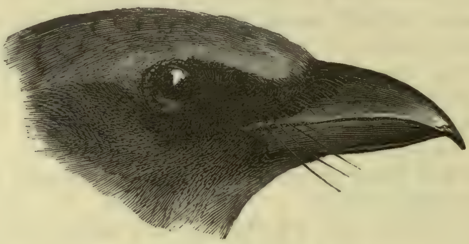

Fig. 145.—Head of *G. macii.*

*Coloration. Male.* Upper plumage grey, paler on the rump and upper tail-coverts; the region of the nostrils, the lores, and the feathers about the gape black; sides of the face and of the neck similar to the upper plumage; ear-coverts dusky; chin, throat, breast, and upper abdomen grey, rather lighter than the upper parts; remainder of lower plumage greyish white; wing-coverts like the back; bastard wing black; primaries and primary-coverts dark brown, very narrowly edged with grey; secondaries more broadly edged with the same; tertiaries grey on the whole outer web and brown on the inner; middle tail-feathers ashy, tipped paler; the others blackish, all tipped with greyish white, increasing in extent outwardly, with the bases grey, this colour decreasing in extent outwardly and being absent on the outer ones.

*Female.* The black on the face is paler, and this part as well as the ear-coverts are of much the same grey as the head; the general tone of the plumage is lighter. The female is seldom without a few indications of immaturity, these signs being visible chiefly in the shape of obsolete bars.

The young have most of the upper plumage tipped and margined with pale ferruginous, and the lower parts nearly pure white.

Iris hazel-brown to lake; eyelids grey; inside of mouth flesh-colour; bill, legs, and claws black.

This bird varies excessively in plumage and in size; the plumage varies according to age and sex, and the size according to locality. The largest birds occur, as a rule, in Burma and Northern India, and the smallest in Ceylon, where some birds have the wing less than 6 inches in length. *G. layardi* appears to have been based on one stage of the immature plumage.

Length 10 to 12; tail 4·3 to 5·8; wing 5·8 to 7; tarsus 1 to 1·1; bill from gape 1·3 to 1·5.

*Distribution.* The whole Empire and Ceylon, except in the Himalayas west of the Sutlej river, and in portions of Sind, Rajputana, and the Punjab.

*Habits, &c.* Breeds from May to October, constructing a shallow nest of slender twigs in a lofty branch of a tree and laying three eggs, which are pale green with brown and purple marks, and measure about 1·26 by ·9.

### 511. **Graucalus dobsoni.** *Dobson's Cuckoo-Shrike.*

Graucalus dobsoni, *Ball, J. A. S. B.* xli, pt. ii, p. 281 (1872); *id. S. F.* i, p. 66; *Wald. Ibis,* 1873, p. 312; *Hume, S. F.* ii, p. 206; *id. Cat.* no. 270 ter.

Artamides dobsoni (*Ball*), *Sharpe, Cat. B. M.* iv, p. 20.

*Coloration. Male.* Lores, about the nostrils, and a broad band through the eye to the ear-coverts black; the whole upper plumage and lesser wing-coverts iron-grey; median and greater coverts and quills very dark brown or black, very narrowly edged with pale grey; tail black, the outer feathers narrowly tipped white; cheeks, chin, throat, and breast pale iron-grey; remainder of the lower plumage, with the under wing-coverts and axillaries, white, narrowly but distinctly barred with blackish brown.

*Female.* Resembles the male, but has the chin, throat, and breast barred like the remainder of the lower plumage.

The young have the upper plumage rufous barred with dark brown, and the lower plumage whitish, barred on the throat, breast, under tail-coverts, and axillaries with blackish. The young, however, vary extremely, and no description will cover all the changes they undergo from the nestling stage to the adult.

Bill, legs, and feet black; iris crimson-lake, tinged with brown in the young (*Hume*).

Length about 12; tail 5·5; wing 6·2; tarsus ·95; bill from gape 1·25.

*Distribution.* The Andaman Islands.

Other species of *Graucalus* are *G. rex-pineti* from China, with the under wing-coverts buff-coloured; and *G. sumatrensis* from Sumatra and the Malay peninsula, smaller than *G. macii*, with an extremely large bill, and no black on the face of the male.

## Subfamily ARTAMINÆ.

The *Artaminæ*, or Swallow-Shrikes, are characterized by wings of great length, which enable them to spend a considerable portion of their time in the air. They catch their insect-food entirely on the wing, either by darting upon it from a fixed perch, or by flying about after the fashion of Swallows.

In these birds the bill is conical, slightly curved and pointed, and the tip is neither hooked nor notched. The first primary is very minute, and the second very large, reaching quite to the tip of the wing. The tail is square and short. The tarsus is weak. The plumage is firm, and the colours plain. The sexes are alike.

The true *Artaminæ* are confined to the Indian and Australian regions.

### Genus **ARTAMUS**, Vieill., 1816.

The characters of *Artamus* are the same as those of the subfamily.

*Key to the Species.*

| | |
|---|---|
| *a.* Rump of the same colour as the back ....... | *A. fuscus*, p. 498. |
| *b.* Rump white, different to the back .......... | *A. leucogaster*, p. 499. |

### 512. **Artamus fuscus.** *The Ashy Swallow-Shrike.*

Artamus fuscus, *Vieill. N. Dict. d'Hist. Nat.* xvii, p. 297 (1817); *Blyth, Cat.* p. 199; *Horsf. & M. Cat.* i, p. 161; *Jerd. B. I.* i, p. 441; *Hume, N. & E.* p. 194; *Sharpe in Rowley's Orn. Misc.* iii, p. 191; *Legge, Birds Ceyl.* p. 666; *Hume, Cat.* no. 287; *Oates, B. B.* i, p. 396; *Davison, S. F.* x, p. 368; *Barnes, Birds Bom.* p. 157; *Hume, S. F.* xi, p. 103; *Oates in Hume's N. & E.* 2nd ed. i. p. 350; *Sharpe, Cat. B. M.* xiii, p. 11*.

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* Mr. Sharpe has kindly allowed me to see the proof-sheets of the 13th vol. of the 'Catalogue,' about to be published.

*Tari ababil*, Hind.; *Tal-chatak*, Beng.; *Tati-pittak*, Tel.; *Murasing*, of Mussulmans in Beng.; *Silliangchi-pho*, Lepch.

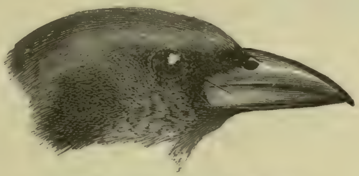

Fig. 146.—Head of *A. fuscus.*

*Coloration.* Lores black; head and neck all round deep grey; back, scapulars, rump, and the shorter upper tail-coverts brown with a vinaceous tinge; longer tail-coverts white; tail dark grey, tipped with whitish; wings and coverts deep grey, darker at the tips, and all the quills with excessively fine but distinct margins of white near the tips and on portions of the inner webs; lower plumage from the throat downwards pale purplish brown; lower tail-coverts whitish, finely barred with ashy.

The young bird is barred with fulvous above, the white margins to the quills are broader, and the wing-coverts are tipped with rufous.

Bill clear pale blue, the tip and the anterior half of the margins brownish; iris dark brown; eyelids plumbeous; legs slate-colour; claws dark horn; mouth black in some, in others yellow, probably varying according to season.

Length 7·3; tail 2·5; wing 5·2; tarsus ·65; bill from gape ·95.

*Distribution.* More or less abundant throughout the Empire, east of a line drawn approximately from Godra in the Panch Máháls to Naini Tal in Kumaun, ascending the Himalayas up to 5000 feet in the summer months, and resident in the plains. The limit of this species in Southern Burma appears to be the latitude of Amherst. It is found in Ceylon, but not in the Andamans nor Nicobars. It extends into Siam and China.

*Habits, &c.* Breeds from March to July, constructing a flimsy nest of grass and roots in holes of trees, or on the surface of large horizontal branches or on the summit of lofty stumps. The eggs, usually three in number, are white marked with brownish rusty, and measure about ·94 by ·68.

513. **Artamus leucogaster.** *The White-rumped Swallow-Shrike.*

? Lanius leucorhynchus, *Linn. Mantissa*, p. 524 (1771).
Ocypterus leucogaster, *Valenc. Mém. Mus. d'Hist. Nat.* vi, p. 21, pl. vii, fig. 2 (1820).
Artamus leucopygialis, *Gould, P. Z. S.* 1842, p. 17; *Blyth, Cat.* p. 199; *Wald. P. Z. S.* 1866, p. 555; *Ball, S. F.* i, p. 67.
Artamus leucogaster (*Valenc.*), *Horsf. & M. Cat.* i, p. 161; *Oates in Hume's N. & E.* 2nd ed. i, p. 353; *Sharpe, Cat. B. M.* xiii, p. 3.
Artamus leucorhynchus (*Linn.*), *Hume, S. F.* ii, p. 214; *id. N. & E.* p. 195; *id. Cat.* no. 287 bis.

*Coloration.* Head and neck all round and a portion of the upper breast slaty grey, the lores and the feathers at the base of the bill darker; back, scapulars, and rump chocolate-brown; lower rump and upper tail-coverts white; tail and wings ashy black; breast, abdomen, sides of body, lower tail- and wing-coverts white.

The young have the upper plumage barred with fulvous, and the wing-coverts and quills are also tipped with the same colour.

Legs and feet in some dusky plumbeous, in some dull black; bill pale blue, tipped blackish; iris deep brown, occasionally slaty blue (*Hume*).

Length about 7; tail 2·5; wing 5·1; tarsus ·65; bill from gape 1.

*Distribution.* The Andaman Islands. This species extends through the islands to Australia.

*Habits, &c.* The nest of this species was found in the Andamans by Davison in a hollow at the top of a stump in May, but it did not contain eggs.

## Family ORIOLIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semirings; the edges of both mandibles smooth, the upper one simply notched; hinder aspect of tarsus smooth, composed of two entire longitudinal laminæ; wing with ten primaries; tongue non-tubular; nostrils clear of the line of forehead, the lower edge of the nostril nearer to the commissure than the upper edge is to the culmen; plumage of the nestling streaked; rictal bristles present; rectrices twelve; sexes generally different; an autumn moult only.

The Orioles comprise a number of birds which are found over the tropical and temperate regions of the Old World. They are mostly birds of bright plumage. They have rich flute-like notes, and in habits are strictly arboreal, never descending to the ground. Only one genus is found in India.

### Genus **ORIOLUS**, Linn., 1766.

The genus *Oriolus* contains nine Indian species of birds, several of which are well-known in India under the name of "Mango-bird." The prevailing colour of these birds is yellow, one species only being red. The young are densely streaked below, and they retain traces of streaks in their plumage probably for two years.

The Orioles frequent forests and well-wooded tracts of country, confining themselves entirely to trees, on the fruit of which, together with insects found on the leaves, they subsist. Many species are sedentary, others are migratory to a small extent, and one is absent from India entirely during the summer months. The Orioles make cup-shaped nests, which are suspended by the rim from the fork of a branch, and they lay spotted eggs. Their notes are very liquid and rich.

In *Oriolus* the bill is as long as the head, the culmen gently curved, and the tip notched and bent; the nostrils are lengthened and exposed; the rictal bristles are fairly strong; the head is never crested; the wing is long and sharp, the first primary longer than half the second; the tail is much shorter than the wing and slightly rounded; the tarsus is short and scutellated.

*Key to the Species.*

*a*. Tail black and yellow or green.
*a'*. Nape black, crown yellow.
*a''*. Outer webs of secondaries and tertiaries conspicuously greenish yellow; all quills tipped yellow.
*a'''*. Nape-band much more than half inch broad .................... *O. indicus*, p. 502.
*b'''*. Nape-band much less than half inch broad .................... *O. tenuirostris*, p. 503.
*b''*. Outer webs of secondaries and tertiaries black in male, brown in female, with hardly a tinge of green; tips to quills absent or obsolete.
*c'''*. Nape-band more than half inch broad; wing about 6 .......... *O. macrurus*, p. 503.
*d'''*. Nape-band less than half inch broad; wing about 5 .......... *O. andamanensis*, p. 504.
*b'*. Nape and crown yellow or greenish yellow.
*c''*. Wing much more than 5.
*e'''*. Lores black, continued back behind the eye .................. *O. kundoo*, p. 504.
*f'''*. Lores only black .............. *O. galbula*, p. 505.
*d''*. Wing much less than 5 .......... *O. xanthonotus* ♀, p. 505.
*c'*. Nape and crown black.
*e''*. Abdomen white streaked with black . *O. xanthonotus* ♂, p. 505.
*f''*. Abdomen plain yellow............ *O. melanocephalus*, p. 506.
*b*. Tail red ............................ *O. traillii*, p. 508.

The first eight Orioles on our list may be termed Yellow Orioles. The young of these resemble each other very closely for the first few months, and subsequently pass through similar stages.

In the nestling, the feathers of the upper plumage are greenish tipped with yellow, and those of the lower white streaked with brown.

Soon after the young are fully fledged, the yellow tips to the upper plumage drop off, the streaks below become firmer and blackish, and the whole plumage yellower. About the first autumn the black marks on the head which characterize the different species become apparent, as also the yellow marks on the wings and tail.

Between the first and second autumns a continual change, tending to the complete adult plumage, takes place, the streaks gradually disappearing, the yellow becoming more intense, and the black marks on the head more pronounced. The young of the different species may generally be identified by the same characters which differentiate the adults.

### 514. **Oriolus indicus.** *The Black-naped Oriole.*

Oriolus indicus, *Jerd. Ill. Ind. Orn.* pl. 15; *Blyth, Cat.* p. 216; *Horsf. & M. Cat.* i, p. 270; *Jerd. B. I.* ii, p. 109; *Ball, S. F.* vii, p. 215.
Oriolus diffusus, *Sharpe, Cat. B. M.* iii, p. 197 (1877); *Legge, Birds Ceyl.* p. 355.
Oriolus indicus (*Jerdon*), *Hume & Dav. S. F.* vi, p. 329; *Hume, Cat.* no. 471; *Oates, B. B.* i, p. 211; *Barnes, Birds Bom.* p. 195; *Hume, S. F.* xi, p. 186.

*The Black-naped Indian Oriole*, Jerd.

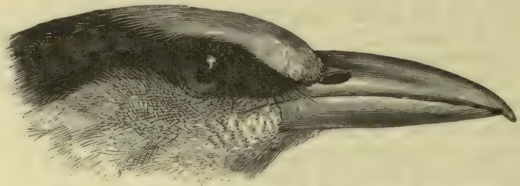

Fig. 147.—Head of *O. indicus.*

*Coloration. Male.* Lores and a streak through the eye, widening to a band three quarters of an inch wide across the nape, black; the whole remaining plumage bright yellow; median pair of tail-feathers black with narrow yellow tips; the others progressively more tipped with yellow towards the outer pair, which is tipped to the extent of an inch and a half; primaries black, tipped and edged narrowly with yellowish white, the secondaries more broadly edged with the same; tertiaries with the whole outer webs and a portion of the inner webs next the shaft yellow; winglet black; primary-coverts black, tipped with yellow to the extent of about ·4 inch; upper wing-coverts bright yellow, the inner webs of the greater coverts being black.

*Female.* Resembles the male, except that the back is tinged with green.

In the adult the iris is pink, eyelids pinkish; bill pink, more or less livid in places; inside of the mouth flesh-colour; legs and toes deep plumbeous; the claws dark brown; young birds have the bill brown or black.

Length 10·7; tail 4; wing 6·1; tarsus 1·05; bill from gape 1·4.

*Distribution.* Occurs over a considerable portion of the Indian peninsula, but is rare. The British Museum contains specimens from various parts of the western coast from Ratnágiri down to

Travancore. This species also occurs in Ceylon. Jerdon records it from Dharwar and near Calcutta; Swinhoe from Mánpur, Central India; and Ball from the Rajmehal hills. Further east, Hume met with it in Manipur, Blyth received it from Arrakan, and I found it abundant in Southern Pegu. Davison observed this Oriole in Tenasserim from Moulmein down to Malawún. It is a winter visitor only to the above localities, being found from October to March. It summers in China and Mongolia.

### 515. **Oriolus tenuirostris.** *The Burmese Black-naped Oriole.*

Oriolus tenuirostris, *Blyth, J. A. S. B.* xv, p. 48 (1846); *id. Cat.* p. 216; *Hume, S. F.* iii, p. 131; *Godw.-Aust. J. A. S. B.* xliii, pt. ii, p. 166; *Blyth, Birds Burm.* p. 140; *Sharpe, Cat. B. M.* iii, p. 198; *Hume & Dav. S. F.* vi, p. 329; *Hume, Cat.* no. 471 ter; *Scully, S. F.* viii, p. 298; *Oates, B. B.* i, p. 212; *Hume, S. F.* xi, p. 187.

*Coloration.* In general appearance similar to *O. indicus.* Differs in having a more slender bill; in the wing-spot or yellow on the primary-coverts being larger, the length of the yellow marks being about three quarters of an inch; in the amount of yellow on the tail extending to nearly 2 inches on the outer feathers, and to 1 inch on those next the middle pair, against 1·5 and ·4 inch respectively in *O. indicus*; in the narrower width of the band on the nape, which is never more than ·4 inch as against ·7 in *O. indicus*; and in the back of the male being tinged with green.

Young birds are difficult to separate. If very young, weight must be attached to the smaller bill and to the smaller amount of yellow on the tail. When the nape-band becomes indicated, however feebly, there can be no doubt to which species the bird examined belongs.

In the adult the iris is red; bill pale pink; inside of the mouth flesh-colour; legs plumbeous; claws dark horn-colour; in the young the bill is black.

Length about 10; tail 3·7; wing 5·9; tarsus 1; bill from gape 1·35.

*Distribution.* Nepal; Darjiling terai; Bhutan and Buxa Doars; Cachar; Manipur; Karennee; Arrakan; Pegu; Tenasserim to the extreme south. Rare, but apparently a permanent resident.

### 516. **Oriolus macrurus.** *The Nicobar Black-naped Oriole.*

Oriolus macrourus, *Blyth, J. A. S. B.* xv, pp. 46, 370 (1846); *id. Cat.* p. 216; *Horsf. & M. Cat.* i, p. 270; *Ball, S. F.* i, p. 71; *Hume, S. F.* ii, p. 228, iii, p. 132; *id. Cat.* no. 471 quat.; *Sharpe, Cat. B. M.* iii, p. 202.

*Coloration. Male.* Lores and a band through the eye and across the nape, where it becomes about three quarters of an inch broad, black; forehead, crown, the whole upper plumage, lesser and median coverts, and outer webs of the greater wing-coverts deep golden yellow; remainder of the wing black; the primary-coverts tipped yellow; some of the primaries very narrowly margined with yellowish white about the middle of the outer web; the secondaries obsoletely tipped with yellowish white; edge of the wing and the whole lower plumage deep yellow; the two middle tail-feathers black tipped with yellow, the others progressively more tipped with yellow, the extent of yellow on the outermost feather being about two inches.

*Female.* Differs from the male in having the yellow parts less bright, and the back and wing-coverts tinged with green; black of wing less intense, the primaries more broadly margined with yellowish, and the outer webs of the secondaries and tertiaries tinged with green.

Legs and feet plumbeous; claws dark horny; bill carneous; iris carmine in the adult, dull red-brown in the young (*Hume*).

Length about 11; tail 4·7; wing 6; tarsus 1; bill from gape 1·6.

*Distribution.* The Nicobar Islands, throughout the group.

### 517. **Oriolus andamanensis.** *The Andaman Black-naped Oriole.*

Oriolus andamanensis, *Tytler, Beavan, Ibis*, 1867, p. 326; *Ball, S. F.* i, p. 72; *Hume, S. F.* ii, p. 226, iii, p. 132; *id. Cat.* no. 471 bis; *Sharpe, Cat. B. M.* iii, p. 200.

Broderipus andamanensis, *Tytler, Walden, Ibis*, 1873, p. 305.

*Coloration.* Differs from *O. macrurus* in being much smaller and in having the nape-band narrower, not exceeding half an inch in breadth.

Legs and feet plumbeous, sometimes tinged with green; soles dirty grey; bill carneous or delicate pink; ridge of culmen in some specimens brown on the terminal half; iris carmine; eyelids brownish red (*Hume*).

Length about 10; tail 4; wing 5·3; tarsus ·9; bill from gape 1·3.

*Distribution.* The Andaman Islands, where this species has been procured on the South Andaman and Macpherson's Straits.

### 518. **Oriolus kundoo.** *The Indian Oriole.*

Oriolus kundoo, *Sykes, P. Z. S.* 1832, p. 87; *Blyth, Cat.* p. 216; *Horsf. & M. Cat.* i, p. 271; *Jerd. B. I.* ii, p. 107; *Hume & Henders. Lah. to Yark.* p. 200, pl. xi; *Hume, N. & E.* p. 299; *Scully, S. F.* iv, p. 140; *Ball, S. F.* vii, p. 215; *Hume, Cat.* no. 470; *Sharpe, Cat. B. M.* iii, p. 194; *Scully, S. F.* viii, p. 297; *id. Ibis*, 1881, p. 440; *Barnes, Birds Bom.* p. 193; *Oates in Hume's N. & E.* 2nd ed. i, p. 354.

*Pilak*, Hind.; *Vanga-pandu*, Tel.; *Pawseh*, Mahr.; *Pashnool*, Kashm.

*Coloration. Male.* The whole head, body, and under wing-coverts rich yellow; lores and a space round and behind the eye black; middle tail-feathers black with narrow yellow tips, the others progressively less black and more yellow, the outermost feather almost entirely yellow, the black being confined to the base of the outer web; wings black, all the quills tipped and partially margined with yellow; basal third of primary-coverts black, remainder yellow.

*Female.* Differs from the male in having the back and scapulars tinged with green.

Iris maroon-red; bill brownish flesh-colour; legs and feet bluish-slate (*Butler*).

Length about 9·5; tail 3·6; wing 5·5; tarsus ·9; bill from gape 1·4.

*Distribution.* The whole of India, from Kashmir and the Himalayas (up to 9000 feet) to Cape Comorin, and from Sind to Western Bengal, the furthest point to the east from which this species is recorded being Manbhoom.

This Oriole is a permanent resident in the plains and lower ranges of the Himalayas, and a summer visitor to Kashmir and the higher ranges. It extends into Afghanistan and Turkestan, but visits the latter country only in summer.

*Habits, &c.* Breeds from May to August, constructing a cradle-like nest of grass and strips of bark, which is suspended by the sides from the fork of a leafy branch of a large tree. The eggs, three or four in number, are white, spotted with black or reddish brown, and measure about 1·11 by ·81.

### 519. **Oriolus galbula.** *The European Oriole.*

Oriolus galbula, *Linn. Syst. Nat.* i, p. 160 (1766); *Hume, S. F.* i, p. 182; *Sharpe, Cat. B. M.* iii, p. 191; *Hume, S. F.* vii, p. 387; *id. Cat.* no. 470 bis; *Murray, Vert. Zool. Sind,* p. 136; *Barnes, Birds Bom.* p. 194.

*Coloration.* Resembles *O. kundoo.* Differs in having the black on the head confined to the lores only and in having more black on the tail, the outermost feather being black on fully its basal half. *O. galbula* has also a longer wing.

Bill dull reddish; iris blood-red; legs lead-grey (*Dresser*).

Length about 10; tail 3·7; wing 6; tarsus ·9; bill from gape 1·3.

Dresser states that the adult female differs considerably in plumage from the male, but there is nothing in the British-Museum series of this bird which lends support to this statement. The male and female appear to differ in exactly the same particulars as do the sexes of *O. kundoo.*

*Distribution.* A rare visitor to Sind in the autumn and winter. This Oriole is largely spread over Europe and Africa and portions of Western Asia.

### 520. **Oriolus xanthonotus.** *The Malay Black-headed Oriole.*

Oriolus xanthonotus, *Horsf. Trans. Linn. Soc.* xiii, p. 152 (1821); *id. Zool. Res. Java,* pl.; *Blyth, Cat.* p. 215; *Horsf. & M. Cat.*

i, p. 268; *Stoliczka, J. A. S. B.* xxxix, pt. ii, p. 317; *Sharpe, Cat. B. M.* iii, p. 213; *Hume & Dav. S. F.* vi, p. 330; *Hume, Cat.* no. 473 bis; *Oates, B. B.* i, p. 215.

*Coloration. Male.* The whole head, neck, chin, throat, and breast black; abdomen and flanks white, streaked with black; under tail-coverts yellow; sides of the breast tinged with yellow; axillaries grey; under wing-coverts black, margined with yellow; back, scapulars, lesser wing-coverts, rump, and upper tail-coverts yellow; median wing-coverts black, broadly tipped with yellow; the remaining coverts and all the quills black, most of them very narrowly edged with yellow; tail black, tipped with yellow, very narrowly on the median pair of feathers, and to an increasing extent outwardly.

*Female.* The whole upper plumage, with the lesser wing-coverts and tertiaries, olive-yellow, and the feathers of the head with dusky striations; lores grey; feathers round the edges of the eyelids yellow; the ear-coverts olive-yellow, with paler shafts; chin and throat whitish; breast, abdomen, and flanks white, streaked with black; under tail-coverts yellow; median and greater wing-coverts brown, edged with olive-yellow; primaries dark brown, very narrowly edged with pale yellow; secondaries dark brown, broadly edged with olive-yellow; tertiaries wholly olive-yellow; tail olive-yellow, all the feathers tipped with bright yellow, as in the male, and all but the middle feathers with the portion near the shaft more or less dark brown.

Owing to the adult female in this species being streaked, the young resemble her closely, but the wing-coverts of the latter are always edged with ferruginous. The young male in passing to the adult stage undergoes the same changes as the young of the other Yellow Orioles. Occasionally an apparently adult male is found with black spots on the back and black margins to the rump-feathers.

The legs and feet are plumbeous blue or very dark plumbeous, the bill very dark fleshy or pale fleshy brown; the irides crimson (*Hume & Davison*).

Length 8; tail 2·8; wing 4·4; tarsus ·8; bill from gape 1·1.

*Distribution.* The extreme south of Tenasserim, extending down the Malay peninsula to Sumatra, Java, and Borneo.

### 521. **Oriolus melanocephalus.** *The Indian Black-headed Oriole.*

Oriolus melanocephalus, *Linn. Syst. Nat.* i, p. 160 (1766); *Blyth, Cat.* p. 215; *Horsf. & M. Cat.* i, p. 269; *Jerd. B. I.* ii, p. 110; *Stoliczka, J. A. S. B.* xxxvii, pt. ii, p. 39; *Hume, N. & E.* p. 301; *Butler, S. F.* iii, p. 474; *Sharpe, Cat. B. M.* iii, p. 215; *Anders. Yunnan Exped., Aves,* p. 660; *Hume, Cat.* no. 472; *Legge, Birds Ceyl.* p. 357; *Oates, B. B.* i, p. 214; *Barnes, Birds Bom.* p. 195; *Hume, S. F.* xi, p. 187; *Oates in Hume's N. & E.* 2nd ed. i, p. 359.

Oriolus ceylonensis, *Bonap. Consp. Av.* i, p. 347 (1850); *Jerd. B. I.* ii, p. 111; *Hume, J. A. S. B.* xxxix, pt. ii, p. 118; *id. S. F.*

i, p. 439; *id. Cat.* no. 473; *Sharpe, Cat. B. M.* iii, p. 216; *Barnes, Birds Bom.* p. 196.

Oriolus himalayanus, *Legge, Birds Ceyl.* p. 358 (1879).

*The Bengal Black-headed Oriole, The Southern Black-headed Oriole,* Jerd.; *Pilak, Zardak,* Hind.; *Pirola* at Goruckpore; *Konda-vanga pandu,* Tel.; *Ka-karulla,* Cing.; *Mamkoel, Mambala kuruvi,* Tam. in Ceyl.

*Coloration. Male.* The whole head, chin and throat, and the upper breast black. With this exception the whole of the body-plumage is bright yellow; coverts to primaries black, with yellow tips forming a wing-spot; winglet black; the upper wing-coverts yellow; the first primary wholly black, the others black tipped with yellow and obsoletely margined with yellowish white on the outer web; secondaries and tertiaries black, with broad diagonal tippings of yellow on the outer webs, gradually extending also to the inner web; the last tertiary or two wholly yellow on the outer web; tail yellow, the middle pair of feathers black on their terminal half, with a yellow tipping, the next pair with less black and a greater yellow tipping, and the third pair with merely a small patch of black on the outer web (absent in very old birds). The shafts of all the rectrices black.

*Female.* Resembles the male, but has the yellow of the back and breast less bright with sometimes a tinge of green.

In the adult the iris is crimson, the eyelids plumbeous, the inside of the mouth flesh-colour, the bill pinkish, the legs plumbeous, and the claws dark horn-colour; the young have the iris brown and the bill varying from black, when quite young, to pink varied with dusky, when older.

Length 9·5; tail 3·4; wing 5·4; tarsus 1; bill from gape 1·3.

The majority of the members of this species in Ceylon and Southern India are smaller and have less yellow on the wing than birds from other parts, but as some Ceylon specimens can be matched by others from Northern India, I do not propose to keep the two races distinct.

Birds of this species vary in the greater or less amount of yellow on the tertiaries, these being entirely yellow on the outer webs in some birds and black tipped with yellow in others. The primary-coverts are tipped with yellow in varying quantity, the yellow tips ranging from one third to one half of an inch. The length of wing varies from about 4·8 to 5·5.

*Distribution.* The whole of India east of a line drawn roughly from the Sutlej valley through Mount Abu to Kattiwar, not on the Himalayas, however, to any great height, probably not above 4000 feet; the whole of Assam and the tracts to the south through Burma to Tenasserim, where this species occurs as far south as Mergui; Ceylon; the Andamans. This Oriole is everywhere a permanent resident in the well-wooded parts of the country.

*Habits, &c.* Breeds from April to August. The nest and eggs are similar to those of *O. kundoo.* The eggs measure about 1·14 by ·82.

### 522. **Oriolus traillii.** *The Maroon Oriole.*

Pastor traillii, *Vigors, P. Z. S.* 1831, p. 175; *Gould, Cent.* pl. 35.
Analcipus traillii (*Vig.*), *Wardlaw Ramsay, Ibis,* 1877, p. 467.
Psaropholus traillii (*Vig.*), *Jard. & Selb. Ill. Orn.* iv, pl. 26; *Blyth & Wald. Birds Burm.* p. 139.
Oriolus traillii (*Vig.*), *Blyth, Cat.* p. 215; *Horsf. & M. Cat.* i, p. 272; *Jerd. B. I.* ii, p. 112; *Sharpe, Cat. B. M.* iii, p. 222; *Hume, Cat.* no. 474; *Scully, S. F.* viii, p. 299; *Oates, B. B.* i, p. 216; *Hume, S. F.* xi, p. 188; *Oates in Hume's N. & E.* 2nd ed. i, p. 362.

*Melambok,* Lepch.; *Tania-pia,* Bhut.

*Coloration.* The whole head, neck, chin, and throat black; the wings and under wing-coverts, with the tips of some of the scapulars, glossy black; remainder of plumage, with the tail, bright shining maroon-red, the tail not so bright as the other parts.

The young have the crown and nape dark brown; back, rump, scapulars, and wing-coverts dark brown, each feather edged with rufous; upper tail-coverts maroon-red, with black shafts; tail maroon-red; the greater part of the middle pair of feathers and the edges of the outer webs of the others brown; lower plumage white, streaked with brown; under tail-coverts pale maroon; wings brown. As the bird grows older the head becomes black, the upper plumage loses the rufous fringes and turns gradually to maroon, the under plumage becomes tinged with red, the streaks disappear, and the adult plumage is assumed by a series of slow changes.

Bill pale bluish grey; irides pale buffy yellow; feet plumbeous; c aws blue at base, pale horny at tip (*Scully*).

Length 11; tail 4·5; wing 6; tarsus 1; bill from gape 1·45.

*Distribution.* The Himalayas from the Sutlej valley to Dibrugarh in Assam; the Khási hills; Manipur; Karennee; Northern Tenasserim; Pegu; Arrakan. This species is rare and very locally distributed. It ascends the Himalayas to 7000 or 8000 feet.

*Habits, &c.* The nest of this Oriole has been found in Sikhim in April. It is of the usual Oriole type. The eggs resemble those of *O. kundoo*, and measure about 1·13 by ·82.

# Family EULABETIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of the mandible smooth or the upper one simply notched; hinder aspect of tarsus longitudially bilaminated, the laminæ entirely smooth; wing with ten primaries; tongue non-tubular; nostrils always clear of the line of forehead, the space between the nostrils and the edge of the mandible less than the distance between the nostril and the culmen; plumage of the nestling streaked; rictal bristles present; sexes alike; rectrices twelve; first primary small; one moult in the year.

The family *Eulabetidæ*, so far as India is concerned, contains only two genera, *Eulabes* and *Calornis*. These genera are usually placed among the *Sturnidæ*, but there are such important differences between the two families, that I deem it necessary to separate them.

The *Eulabetidæ* are strictly arboreal, have rictal bristles, and lay spotted eggs. The *Sturnidæ*, on the other hand, procure a great portion of their food on the ground, have no trace of rictal bristles, and lay spotless eggs.

In *Calornis* the young bird is very greatly streaked, but in *Eulabes* the plumage of the young, so far as specimens of the young at my disposal have enabled me to determine the point, are plain. But I have seen no really young nestling. Probably *Eulabes* should not be associated with *Calornis*, but rather with the subfamily *Sibiinæ* of the *Crateropodidæ*.

### *Key to the Genera.*

| | |
|---|---|
| *a*. Fleshy wattles on the head .................. | EULABES, p. 509. |
| *b*. No wattles on the head ...................... | CALORNIS, p. 514. |

## Genus **EULABES**, Cuvier, 1817.

The genus *Eulabes* contains the Grackles or Talking-Mynas, four of which are Indian species and well-known familiar cage-birds.

The Grackles chiefly frequent forests on hills, but are at times found in the plains. They feed entirely on fruit, never descending to the ground. Their natural notes are varied, and they are easily taught to repeat words and sounds. They live on the highest trees, laying their eggs in natural hollows of trees which are merely lined with a few leaves or a little grass. The eggs are generally only two in number, and they are a pale green or blue, spotted and splashed with purple and chocolate-brown.

In *Eulabes* the plumage is very glossy; the head is furnished with fleshy wattles, and there are frequently some bare patches of skin on the side of the head; the bill is thick, high, and curved, shorter than the head; the rictal bristles are weak; the feathers of the crown are very short and curled inwards, with a sort of parting down the middle of the crown; the wing is rather blunt, and the tail short and nearly square; the feet are strong.

All the Grackles are resident species or very locally migratory.

### *Key to the Species.*

| | |
|---|---|
| *a*. Some bare skin on sides of head. | |
| *a'*. Two elongate bare patches of skin on the nape | *E. religiosa*, p. 510. |
| *b'*. No bare patches of skin on the nape. | |
| *a''*. Bare patch under eye joined to patch over ear-coverts | *E. intermedia*, p. 511. |
| *b''*. Bare patch under eye not connected with patch over ear-coverts | *E. javanensis*, p. 512. |
| *b*. No bare skin on sides of head | *E. ptilogenys*, p. 513. |

### 523. **Eulabes religiosa.** *The Southern Grackle.*

Gracula religiosa, *Linn. Syst. Nat.* i, p. 164 (1766); *Blyth, Cat.* p. 108.

Eulabes religiosa (*Linn.*), *Horsf. & M. Cat.* ii, p. 522; *Jerd. B. I.* ii, p. 337; *Hume, N. & E.* p. 435; *id. S. F.* iv, p. 402; *Fairbank, S. F.* v, p. 407; *Ball, S. F.* vii, p. 221; *Legge, Birds Ceyl.* p. 682; *Hume, Cat.* no. 692; *Davison, S. F.* x, p. 401; *Barnes, Birds Bom.* p. 258; *Oates in Hume's N. & E.* 2nd ed. i, p. 363.

Mainatus religiosa (*Linn.*), *Sharpe, Cat. B. M.* xiii, p. 99.

*The Southern Hill Myna*, Jerd.; *Kokni maina* Hind.; *Konda gorinka*, Tel.

*Coloration.* The whole plumage glossy black, most of the primaries with a patch of white at their base; portions of the head bare as shown (fig. 148); the coronal and auricular nude patches joined posteriorly and produced into wattles.

The young are dull black and have no wattles.

Iris brown, the outer edge white, darkly mottled; bill orange-yellow; legs and feet citron-yellow; lappets and cheek-spot rich yellow, the latter tinged with blue at the upper edge (*Legge*).

Length about 10; tail 2·8; wing 5·8; tarsus 1·2; bill from gape 1·4.

*Distribution.* The hilly and well-wooded portions of the southern part of India; Ceylon. This species is rather local, and confined chiefly to the large forests of the western coast of India as far north as Coorg. It is, however, found on the east as far north as Goomsur and the Northern Circars, according to Ball. On the Palni hills it is found between 4000 and 5000 feet, and on the Nilgiris from 4000 feet downwards. In Ceylon, according to

Legge, it is not found above 1500 feet. The distribution of this species is not well shown by the series in the British Museum, and its northern limits are difficult to determine.

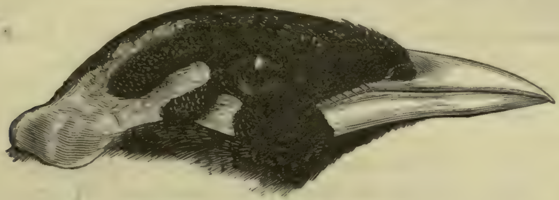

Fig. 148.—Head of *E. religiosa.*

*Habits, &c.* Breeds from March to October. The eggs measure about 1·3 by ·88, and are generally two in number.

### 524. **Eulabes intermedia.** *The Indian Grackle.*

Gracula intermedia, *A. Hay, Madr. Journ. L. S.* xiii, pt. ii, p. 157 (1844); *Blyth, Cat.* p. 107; *Oates, B. B.* i, p. 391.
Eulabes intermedia (*A. Hay*), *Horsf. & M. Cat.* ii, p. 523; *Jerd. B. I.* ii, p. 339; *Ball, S. F.* i, p. 77; *Wardlaw Ramsay, Ibis,* 1877, p. 460; *Ball, S. F.* vii, p. 222; *Oates in Hume's N. & E.* 2nd ed. i, p. 365.
Eulabes andamanensis, *Tytler, Beavan, Ibis,* 1867, p. 331; *Wald. Ibis,* 1871, p. 177.
Eulabes javanensis (*Osb.*), *Hume, N. & E.* p. 436; *id. S. F.* ii, p. 254, v, p. 86; *id. & Dav. S. F.* vi, p. 396; *Hume, Cat.* no. 693 (part.).
Mainatus intermedius (*A. Hay*), *Sharpe, Cat. B. M.* xiii, p. 104.
Mainatus andamanensis (*Tytler*), *Sharpe, Cat. B. M.* xiii, p. 107.

*The Nepal Hill Myna,* Jerd.; *Paharia-maina,* Hind.; *Thaleegah,* Burm.

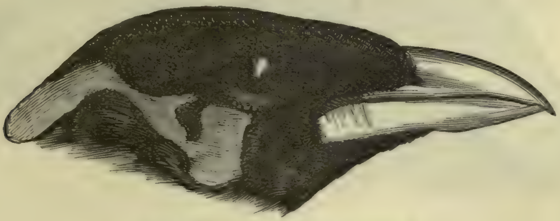

Fig. 149.—Head of *E. intermedia.*

*Coloration.* The whole plumage black, the edges of the feathers broadly edged with metallic lilac and green; wings and tail dull black, most of the primaries with a patch of white at their base.

The young bird is dull black and has no wattles. These begin to grow in the first October after birth.

Bill coral-red, yellow at the tip; mouth flesh-colour; iris brown;

wattles and naked skin of head yellow, tinged with orange on the sides of the head; the corner near the eye faintly tinged with blue; legs yellow; claws yellowish horn-colour.

Length about 11·5; tail 3·3; wing 6·4; tarsus 1·4; bill from gape 1·5.

A race of this species from the Andamans and Nicobars has been separated under the name of *E. andamanensis.* Typical examples have a longer wing and more white on the wing than *E. intermedia.* I do not consider it advisable to retain this race separate.

*Distribution.* The Himalayas from Kumaun to Assam, and thence through Burma to the southernmost portion of Tenasserim, and down the Malay peninsula; south-eastern Central Provinces and neighbouring tracts, where this species has been recorded from Gangpur and Sarunda, Kalahandi, Jaipur, Bastar, and Sambalpur. This species does not ascend the Himalayas to any great height, but keeps chiefly to the lower ranges and valleys. It is found in the Andamans and Nicobars.

*Habits, &c.* Breeds from March to May, laying two or three eggs, which measure about 1·13 by ·8.

### 525. **Eulabes javanensis.** *The Malay Grackle.*

Corvus javanensis, *Osbeck, Voy. to China*, i, p. 157 (1771).
Eulabes javanus, *Cuv. Règne Anim.* 2nd ed. i, p. 377 (1829).
Gracula javanensis (*Osb.*), *Blyth, Cat.* p. 107 (part.); *Hume, Cat.* no. 693 (part.); *Oates, B. B.* i, p. 393.
Eulabes javanensis (*Osb.*), *Horsf. & M. Cat.* ii, p. 524 (part.); *Walden, Ibis*, 1871, p. 176.
Mainatus javanensis (*Osb.*), *Sharpe, Cat. B. M.* xiii, p. 102.

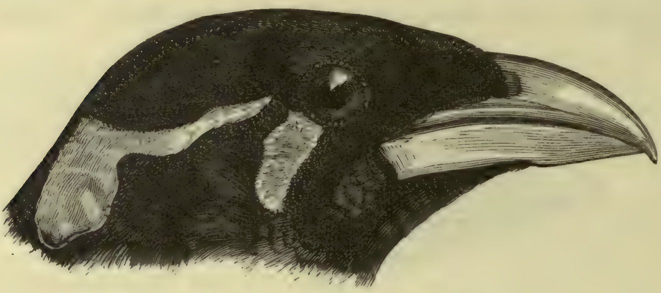

Fig. 150.—Head of *E. javanensis.*

*Coloration.* Resembles *E. intermedia*, but is much larger, with very much more massive bill and legs. The chief difference between the two species, however, consists in the shape and disposition of the naked patches on the side of the head. In *E. intermedia* the patch under the eye and the one over the ear-coverts are joined together. In *E. javanensis* the patches are in most cases quite separated by a feathered tract, as shown in the cut (fig. 150). For this cut I have selected a bird in which this feature is marked in an extraordinary degree, but it is more or less the same in other specimens. Some birds, however, have the patches joined by a narrow line not broader than an ordinary pin. But under no circumstances can the two species be confounded, if well-prepared specimens of each be examined.

Bill orange-vermilion, yellow at the tip; legs and wattles sulphur-yellow (*Wardlaw Ramsay*).

Length about 12·5; tail 3·5; wing 6·8; tarsus 1·5; bill from gape 1·6.

*Distribution.* The extreme south of Tenasserim, probably ranging into the Thoungyeen valley. The Malay peninsula, Sumatra, Java, and Borneo.

*Habits, &c.* A nest of a Grackle found by Bingham in Tenasserim, judging by the size of the eggs, belonged to this species. It was found in March, and the two eggs it contained measured 1 3 by ·95, and 1·27 by ·93.

### 526. **Eulabes ptilogenys.** *The Ceylon Grackle.*

Gracula ptilogenys, *Blyth, J. A. S. B.* xv, p. 285 (1846); *id. Cat.* p. 108.

Eulabes ptilogenys (*Blyth*), *Hume, S. F.* vii, p. 410; *Legge, Birds Ceyl.* p. 685, pl. 29, fig. 2; *Hume, Cat.* no. 693 bis; *Oates in Hume's N. & E.* 2nd ed. i, p. 366.

Mainatus ptilogenys (*Blyth*), *Sharpe, Cat. B. M.* xiii, p. 109.

*Mal-Kawada, Selalaheniya,* Cing.

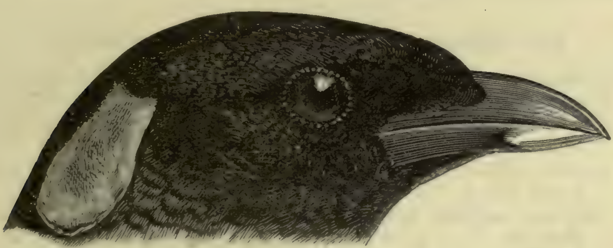

Fig. 151.—Head of *E. ptilogenys.*

*Coloration.* No naked skin on side of head; the whole plumage brilliant glossy black, the first six or seven primaries with a patch of white at their bases.

Iris (male) greyish white, dappled with brown, (female) white or yellowish white; bill orange-red, with the upper mandible black from gape to nostril, the lower black for half its length; legs and feet gamboge-yellow; claws blackish; lappets rich yellow (*Legge*).

Length about 10; tail 2·8; wing 6; tarsus 1·35; bill from gape 1·4.

*Distribution.* Ceylon.

*Habits, &c.* Breeds in June, July, and August. The eggs, two in number, measure about 1·3 by ·97.

## Genus **CALORNIS**, Gray, 1841.

The genus *Calornis* comprises some birds which are frequently termed Glossy Starlings or Tree-Stares. They are largely represented in South-eastern Asia and range to Australia. I do not know how far the Glossy Starlings of Africa are related to the Glossy Starlings of Asia, but there seem to be important differences between some of them.

In *Calornis* the plumage is highly glossy; the bill is stout with the culmen curved; the nostrils small and round; the wing sharp and long; the tail moderate in length and considerably graduated, and the foot strong.

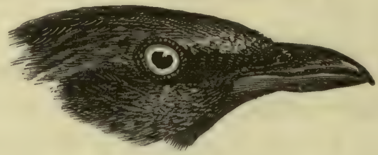

Fig. 152.—Head of *C. chalybeïus.*

Only one species of *Calornis* occurs in India, and of this species the insular race from the islands of the Bay of Bengal is subject to some variation in colour.

### 527. **Calornis chalybeïus.** *The Glossy Calornis.*

Turdus chalybeus, *Horsf. Trans. Linn. Soc.* xiii, p. 148 (1821).
Turdus strigatus, *Horsf. Trans. Linn. Soc.* xiii, p. 148 (1821).
Lanius insidiator, *Raffles, Trans. Linn. Soc.* xiii, p. 307 (1821).
Calornis cantor (*Gm.*), *apud Blyth, Cat.* p. 111.
Calornis affinis, *A. Hay, Blyth, J. A. S. B.* xv, pp. 36, 369 (1846); *Blyth, Cat.* p. 111; *Wald. Ibis,* 1875, p. 461.
Calornis chalybeus (*Horsf.*), *Horsf. & M. Cat.* ii, p. 543; *Hume & Dav. S. F.* vi, p. 394; *Hume, Cat.* no. 690 bis; *Oates, B. B.* i, p. 390; *Sharpe, Cat. B. M.* xiii, p. 143; *Oates in Hume's N. & E.* 2nd ed. i, p. 367.
Calornis tytleri, *Hume. S. F.* i, p. 480 (1873); *id. N. & E.* p. 434; *id. S. F.* ii, p. 253; *id. Cat.* no. 690 ter.
Calornis irwini, *Hume, S. F.* i, p. 481 (1873).

*Coloration.* The lores and feathers at the base of the upper mandible black without gloss; with this exception, the whole plumage black with a brilliant green gloss; wings and tail black with only a faint bluish gloss.

The young have the upper plumage brown overlaid with green; the wings brown, edged paler; the lower plumage buffy white, streaked with greenish brown.

In all adults the legs, feet, and bill are black, the irides crimson scarlet. In younger birds the legs and feet are brownish or bluish black, the irides yellowish white; at a later stage the irides are pale yellow with a reddish-brown tinge; then they become orange-vermilion, and finally scarlet-crimson (*Hume & Davison*).

Length 8·5; tail 3·2; wing 4·1; tarsus ·9; bill from gape 1.

Making small allowances, the plumage and size of this species are very constant throughout its great range. Birds from the Andamans are somewhat larger on the whole, but some birds from Tipperah run very close to them in this respect. Singapore specimens are the smallest. The Andaman race, in addition to being somewhat larger, is of a much darker green, almost a black in some lights. I do not, however, propose to separate this insular form, as I have had a difficulty in separating some of the Andaman birds from others from Tipperah and Burma.

*Distribution.* Tipperah; Dacca; Cachar; the Khási hills; Arrakan; the southern half of Tenasserim from Yay to Malewún; the Andamans and Nicobars; extending down the Malay peninsula to Sumatra, Java, and Borneo.

*Habits, &c.* This *Calornis* associates in large flocks and frequents trees, never descending to the ground. It breeds in holes of trees, in the recesses of old bridges and buildings, in holes in the banks of rivers, and in the tops of palm-trees. The eggs, which appear to be three in number, are pale greenish blue spotted and blotched with reddish and purple. They measure about 1 by ·74.

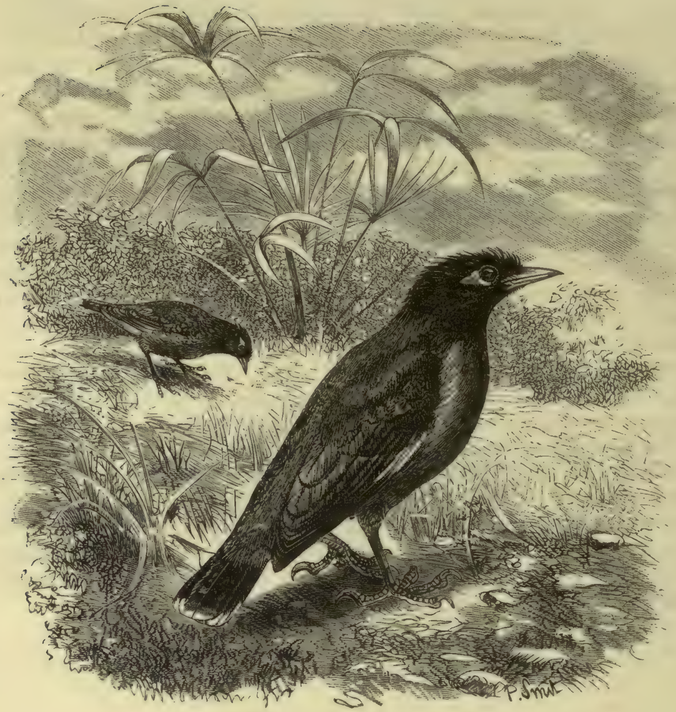

Fig. 153.—*Acridotheres tristis.*

## Family STURNIDÆ.

The intrinsic muscles of the syrinx fixed to the ends of the bronchial semi-rings; the edges of both mandibles smooth, or the upper one simply notched; hinder aspect of tarsus bilaminated, the laminæ entire and smooth; wing with ten primaries; tongue non-tubular; nostrils always clear of the line of forehead, the space between the nostril and the edge of the mandible less than the space between the nostril and the culmen; plumage of the nestling typically streaked; no rictal bristles nor vestige of any; sexes alike or very nearly so; rectrices twelve; first primary minute; one moult in the year.

The *Sturnidæ* or the Starlings and Mynas, as restricted in this work, form one of the best-defined families of the Passeres. I exclude from this family the Grackles (*Eulabes*) and the Glossy Starlings (*Calornis*), which have hitherto been associated with the true Starlings by nearly all writers. These two genera differ in so many important matters, as has been already pointed out, that I cannot look upon them as in any way closely allied to the *Sturnidæ*.

The *Sturnidæ* are spread over a considerable portion of the Old World. A few species are migratory, but the majority, especially of the Indian species, are resident. They are almost without exception gregarious. They frequent trees, but the main portion of their food is obtained on the ground. They breed in holes of trees and buildings, a very few only making nests of straw in branches, and they all lay unspotted eggs of various tints of blue.

The plumage of the young of the *Sturnidæ* is in most cases streaked below. This is most evident and most developed in *Sturnus*; but many other genera show indications of streaking in various degrees. On the other hand, some genera appear to have the young quite plain. The series of nestlings in the British Museum is necessarily very imperfect, since little attention is paid by collectors to the acquisition of young specimens in down.

*Key to the Genera.*

- *a*. Wing pointed, secondaries falling short of tip by more than length of tarsus.
  - *a'*. Crest extremely long, much exceeding tarsus in length and reaching to upper back .................................. PASTOR, p. 518.
  - *b'*. Crest moderate or obsolete, always shorter than tarsus.
    - *a''*. Feathers of forehead short, lying flat and directed backwards; entire head feathered.
      - *a'''*. Bill stout, as long as head, broad and bluntly tipped.
        - $a^4$. Covering membrane of nostril plumed only on posterior half; plumage glossy, speckled ....... STURNUS, p. 519.
        - $b^4$. Covering membrane of nostril plumed throughout; plumage neither glossy nor speckled .... SPODIOPSAR, p. 524.
      - *b'''*. Bill slender, shorter than head, narrowing regularly to a sharp point.
        - $c^4$. Middle rectrices longer than the outermost........................ STURNIA, p. 525.
        - $d^4$. Middle rectrices shorter than the outermost........................ AGROPSAR, p. 530.
    - *b''*. Feathers of forehead lengthened, projecting forward; region of eye naked. AMPELICEPS, p. 531.
- *b*. Wing blunt, secondaries falling short of tip by less than length of tarsus.
  - *c'*. Crest much longer than tarsus, reaching to upper back ........................ TEMENUCHUS, p. 532.

d'. Crest shorter than tarsus.
  c''. Bare skin on side of head.
    c'''. Frontal feathers short and inclined backwards.
      $e^4$. Bare skin of face restricted to a patch behind eye ............ STURNORNIS, p. 533.
      $f^4$. Bare skin of face extending both below and behind eye ........ GRACULIPICA, p. 534.
    d'''. Frontal feathers lengthened and erect ACRIDOTHERES, p. 537.
  d''. No bare skin on side of head.
    e'''. Bill shorter than head, culmen curved; frontal feathers lengthened, curly, erect .................... ÆTHIOPSAR, p. 539.
    f'''. Bill as long as head, culmen straight; frontal feathers short and inclined backwards .................... STURNOPASTOR, p. 542.

## Genus **PASTOR**, Temm., 1815.

The genus *Pastor* contains one well-known Starling which is found over the greater part of India proper for nine months of the year, absenting itself during the other three for the purpose of breeding in Western Asia and Europe.

In *Pastor* the sexes are very closely alike, but the young bird is brown, and streaked on the fore neck, and it takes nearly two years to assume the adult plumage. The bill is rather shorter than the head, slender and curved; the nasal membrane is plumed; the head is fully crested with pointed feathers of great length; the wing is extremely long and pointed; the tail short and square. The plumage is very handsome and differs in colour in the summer and winter, the tips which adorn the feathers in the latter season dropping off in the former.

### 528. **Pastor roseus.** *The Rose-coloured Starling.*

Turdus roseus, *Linn. Syst. Nat.* i, p. 294 (1766).
Pastor roseus (*Linn.*), *Blyth, Cat.* p. 111; *Horsf. & M. Cat.* ii, p. 539; *Jerd. B. I.* ii, p. 333; *Beavan, Ibis,* 1867, p. 331; *Hume, S. F.* i, p. 208; *Ball, S. F.* iii, p. 208; *Scully, S. F.* iv, p. 164; *Hume, Cat.* no. 690; *Doig, S. F.* viii, p. 374; *Legge, Birds Ceyl.* p. 673; *Barnes, Birds Bom.* p. 257; *Sharpe, Cat. B. M.* xiii, p. 63; *Oates in Hume's N. & E.* 2nd ed. i, p. 368.

*Golabi maina,* Hind. in the North; *Tilyer,* Hind. in the South; *Pariki-pitta, Palisa,* Tel.; *Sura kuravi,* Tam.; *Bya* in Sind.

*Coloration.* The adult in summer has the whole head, crest, neck, chin, throat and upper breast, wings and tail glossy black; under wing-coverts and axillaries black, edged with white; thighs, a patch on each flank, and the under tail-coverts black tipped with white; remainder of the plumage rose-colour.

After the autumn moult and throughout the winter the black feathers of the head, throat, and neck are tipped with buff. These tips are cast at the end of winter, or get worn off.

The sexes are very similar, but the female is perhaps slightly paler, with a shorter crest.

The nestling has the whole plumage sandy brown, the feathers of the crown with darker centres, the lower plumage paler and more inclined to white; the whole fore neck streaked with brown; wings and tail dark brown, each feather edged with pale buff.

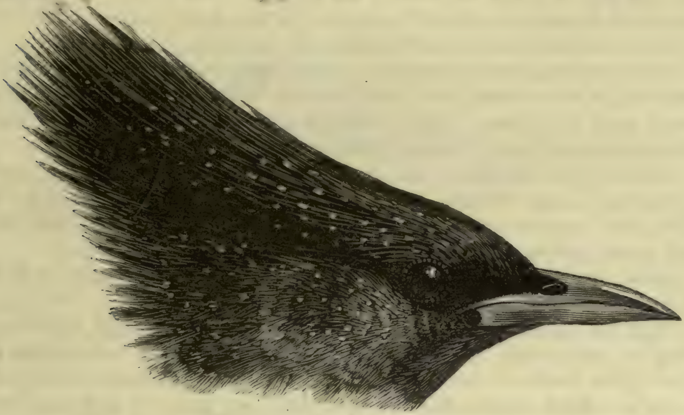

Fig. 154.—Head of *P. roseus.*

At the first autumn moult the rose-colour is assumed in a faint form, some black feathers make their appearance on the upper breast, and the wings and tail become black. The fully adult plumage is probably not assumed till the second autumn, and is acquired by a gradual change of colour, not of feather.

Iris dark brown; legs and feet yellowish brown; bill pinkish-flesh, brown on the culmen (*Butler*).

Length about 9; tail 2·5; wing 5·2; tarsus 1·25; bill from gape 1·3.

*Distribution.* The whole of India as far east as Western Bengal, Ball recording this species from Manbhoom. It is found on the lower ranges of the Himalayas as far east as Sikhim. It extends to Ceylon, and is said to have occurred in the Andamans. It is absent from India from about the middle of May to the beginning of July, but is abundant at other times. It occurs over a considerable portion of Europe and Western and Central Asia.

*Habits, &c.* Occurs in large flocks, feeding chiefly on or near the ground on grain, fruit, and insects. This Starling has not been found breeding in any part of India. It breeds in large societies in Asia Minor and other parts in June, on rocky hill-sides, constructing its nest, which is merely a small pad of grass, on the ground, under stones, or even in the open. The eggs, varying from two to five, are white or bluish white, and measure about 1·1 by ·8.

## Genus **STURNUS**, Linn., 1766.

The genus *Sturnus* contains the true Starlings, birds which have a wide distribution, and are more or less familiar and well-known wherever they occur.

The Starlings may be recognized by their bright plumage, which is glossed with red, purple, and blue, and by the hackled feathers of the head, throat, and breast. They have a winter and a summer plumage, the change from the winter to the summer garb being caused by the casting of the buff tips of the feathers, and the colour of the bill changes according to season. The young are much streaked below, and do not resemble the adult till the first autumn. The sexes are closely, if not absolutely, alike.

The Starlings are gregarious. They feed chiefly on the ground, on insects and worms, but they are fond of fruit and berries, which they pick off trees. They breed in holes of trees, walls, and buildings, making a slovenly nest of straw and feathers.

In *Sturnus* the bill is as long as the head, broad, blunt, and straight. The nostrils are covered by a membrane which is feathered on the posterior half. The wing is very sharp, but the tail short and square.

Most of the true Starlings are migratory in a greater or less degree.

The six species which occur in India are closely allied, but they may be separated by the colour of the gloss on the feathers. This gloss varies in each species, and is in each instance correlated with a certain geographical distribution, so that we may look on these Starlings as constituting well-defined species. I have had no difficulty in separating the various species treated of here, both the colours and the dimensions being very constant in each species.

*Key to the Species.*

*a*. Head green or blue; interscapulary region red.
  *a'*. Rump bronze-green .................. *S. humii*, p. 520.
  *b'*. Rump red like the back.
    *a''*. Wing coppery-bronze, over 5 ...... *S. porphyronotus*, p. 521.
    *b''*. Wing bronze-green, about 4·5...... *S. minor*, p. 522.
*b*. Head purplish red; interscapulary region green.
  *c'*. Scapulars, wings, and back uniformly green; under wing-coverts edged with buff ........................... *S. menzbieri*, p. 522.
  *d'*. Scapulars, wings, and back not of one colour; under wing-coverts edged with white.
    *c''*. Back green; scapulars blue; wings red *S. poltaratzskii*, p. 523.
    *d''*. Back green; scapulars and wings red *S. purpurascens*, p. 524.

### 529. **Sturnus humii.** *The Himalayan Starling.*

Sturnus indicus, *Hodgs. in Gray's Zool. Misc.* p. 84 (1844, descr. nulla); *Sharpe, Cat. B. M.* xiii, p. 35 (1889).

Sturnus splendens, *Bonap. Consp. Av.* i, p. 421 (1850, *ex Temm. MS.*, descr. nulla).

Sturnus unicolor, *Marmora, apud. Jerd. B. I.* ii, p. 322.

Sturnus nitens, *Hume, Ibis*, 1871, p. 410 (*nec Brehm*); *Hume & Henders. Lah. to Yark.* p. 250, pl. xxiv; *Hume, N. & E.* p. 425; *id. S. F.* iii, p. 409; *id. Cat.* no. 682; *id. S. F.* viii, p. 174.

Sturnus humii, *Brooks, Ibis*, Oct. 1876, p. 500; *id. S. F.* viii, p. 487; *Gould, B. Asia,* v (descr., nec fig. 43=*S. menzbieri*); *Oates in Hume's N. & E.* 2nd ed. i, p. 369.
Sturnus ambiguus, *Hume, S. F.* iv, p. 512 (Dec. 1876), v, p. 238.

*The Glossy Black Starling*, Jerd.

*Coloration. Summer.* Black with a few fulvous specks, which are sometimes absent on the flanks; wings and tail brown, edged with velvety black; under wing-coverts dark brown, edged with white.

*Winter.* All the feathers of the upper plumage and wing-coverts tipped with buff, the head alone in some old birds being spotless or nearly so; sides of head and lower plumage black, with large whitish tips to the feathers of the flanks, lower abdomen, and under tail-coverts.

*Gloss.* Forehead, crown, nape, and sides of head purplish blue, ear-coverts greenish; throat, neck, upper breast, and back coppery red; rump, scapulars, wings, and abdomen bronze-green.

The nestling is pale brown above and on the sides of the head and neck; lower plumage whitish streaked with brown; sides of the body uniformly brown.

At the first autumn the colours and gloss of the adult are assumed, but the terminal spots on the feathers remain very large and numerous over the entire upper plumage, and the spots on the lower plumage are also large, round, and pure white. In the first spring these tips are in great measure cast off, but some few remain throughout the first summer.

Bill yellow; legs and feet reddish brown (*Hume*).

Length about 7·5; tail 2·2; wing 4·6; tarsus 1·15; bill from gape 1·25.

*Distribution.* Kashmir and the Himalayas to Nepal, occasionally descending in winter to the plains, specimens having been procured at Dinapore and Etáwah, and in Sind. This species also occurs in the extreme north-west of the Punjab, where it breeds. It extends to Kandahar.

*Habits, &c.* Breeds in the Punjab and in Kashmir in April and May, in holes of willow-trees, &c. The eggs measure about 1·13 by ·83.

### 530. **Sturnus porphyronotus.** *The Central-Asian Starling.*

Sturnus purpurascens, *Gould, apud Hume, S. F.* viii, p. 174; *Brooks, S. F.* viii, p. 488; *Biddulph, Ibis,* 1881, p. 79; *Scully, Ibis*, 1881, p. 573.
Sturnus vulgaris, *Linn., apud Scully, S. F.* iv, p. 162.
Sturnus porphyronotus, *Sharpe, Ibis,* 1888, p. 438; *id. Cat. B. M.* xiii, p. 38, pl. 2.

*Coloration.* Resembles *S. humii.*

*Gloss.* Head, throat, and fore neck bronzy green; whole upper plumage and scapulars rich purple or purplish red; wings coppery bronze; breast reddish violet; abdomen coppery bronze.

Legs and feet dark reddish brown; bill blackish brown in winter; iris dark brown (*Hume*); bill in summer yellow, dusky at tip (*Scully*).

Length about 9; tail 2·8; wing 5·2; tarsus 1·2; bill from gape 1·3.

*Distribution.* A winter visitor to India. In the British Museum there are specimens of this Starling from Kashmir, various parts of the Punjab, Dehra, Sahàranpur, Aligarh, and Etáwah.

This species summers in Turkestan, and is also found in Afghanistan, but probably only in winter.

*Habits, &c.* Breeds in Turkestan in May and June. According to Scully the eggs measure 1·19 by ·83.

### 531. **Sturnus minor.** *The Small Indian Starling.*

Sturnus minor, *Hume, S. F.* i, p. 207 (1873); *Blanf. S. F.* v, p. 246; *Hume, Cat.* no. 681 bis; *id. S. F.* viii, p. 174; *Doig, S. F.* viii, p. 374; *Barnes, Birds Bom.* p. 254; *Sharpe, Ibis,* 1888, p. 440; *id. Cat. B. M.* xiii, p. 39; *Oates in Hume's N. & E.* 2nd ed. i, p. 370.

*Coloration.* Resembles *S. humii.*

*Gloss.* Head, throat, and fore neck bronzy green; back, rump, upper tail-coverts, and scapulars very rich purplish red; wings bronze-green; breast reddish violet; abdomen coppery bronze.

Iris in male brown, in female pale whitish; bill yellow, dusky at tip; legs and feet claret-brown (*Doig*); the bill appears to be brown in winter.

Length about 8; tail 2·3; wing 4·5; tarsus 1·1; bill from gape 1·2.

*Distribution.* Permanently resident in Sind, and occurring as far east as Etáwah.

*Habits, &c.* Mr. Doig found this Starling breeding on the banks of the Eastern Nára in Sind, from March to May, in holes of trees. The eggs, frequently five in number, measure about 1·03 by ·79.

### 532. **Sturnus menzbieri.** *The Common Indian Starling.*

Sturnus vulgaris, *Linn., apud. Jerd. B. I.* ii, p. 321; *Hume, S. F.* i, p. 206; *Ball, S. F.* vii, p. 221; *Hume, Cat.* no. 681; *id. S. F.* viii, p. 175; *Scully, S. F.* viii, p. 329; *Barnes, Birds Bom.* p. 253; *Hume, S. F.* xi, p. 260.

Sturnus humii, *Gould, B. Asia,* v, pl. 43 (nec descr.).

Sturnus menzbieri, *Sharpe, Ibis,* 1888, p. 438; *id. Cat. B. M.* xiii. p. 33, pl. i.

*The Common Starling,* Jerd.; *Telia-maina,* Hind.; *Tilora,* at Ghazipur; *Nakshi-telia,* at Agra; *Tilgiri,* Kashm.

*Coloration.* Resembles *S. humii.* Under wing-coverts brown, broadly edged with buff.

*Gloss.* Head, neck, and throat purplish red; upper plumage and wings bronze-green; lower plumage greenish blue.

Bill blackish horn in winter, lower mandible narrowly edged white; legs and feet dark hazel; iris deep brown (*Butler*).

Length about 9; tail 2·6; wing 5; tarsus 1·15; bill from gape 1·3.

*Distribution.* A winter visitor to the Himalayas as far east as Dibrugarh in Assam, and to the plains of India as far south as the atitude of Baroda. In the British Museum there is, however, a specimen procured by Burgess in the Deccan, and another from the Tweeddale collection marked Madras.

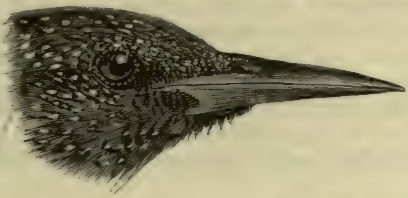

Fig. 155.—Head of *S. menzbieri.*

Hume states that this species breeds in Kashmir. Scully on the other hand informs us that it passes through Gilgit at the spring and autumn migration, and that a few remain during the winter in that place. He does not appear to have noticed it in summer. This Starling retires in summer to Siberia and portions of Central Asia.

### 533. **Sturnus poltaratzskii.** *Finsch's Starling.*

Sturnus poltaratzskii, *Finsch, P. Z. S.* 1878, p. 712; *Sharpe, Ibis,* 1888, p. 439; *Scully, J. A. S. B.* lvi, pt. ii, p. 86; *Sharpe, Cat. B. M.* xiii, p. 36.
Sturnus nobilior, *Hume, S. F.* viii, p. 175 (1879).

*Coloration.* Resembles *S. humii.*

*Gloss.* Head, throat, neck, tail, and wings purplish red; hind neck, back, and breast bronze-green; scapulars and rump purplish blue; abdomen purplish red.

Bill yellow in summer, the base of the lower mandible horn-grey; feet reddish brown; iris brown (*Finsch*).

Length about 8·5; tail 2·6; wing 4·8 to 5·2; tarsus 1·2; bill from gape 1·3.

*Distribution.* The only specimens that I have seen of this Starling from India are, one from Mardán in the Punjab on the borders of Cabul, another from N.W. India, and one from Sind. The first is in the Hume collection, the second in the Gould collection, the third was collected by Blanford on the Manchhar.

This Starling occurs westwards as far as Europe in winter, and in Siberia and Central Asia in summer. Finsch found it breeding on lake Marka-Kul in the Chinese High Altai at 5000 feet in June.

### 534. **Sturnus purpurascens.** *Gould's Starling.*

Sturnus purpurascens, *Gould, P. Z. S.* 1868, p. 219; *id. B. Asia,* v, pl. 44; *Sharpe, Ibis,* 1888, p. 440; *id. Cat. B. M.* xiii, p. 37.

*Coloration.* Resembles *S. humii.*

*Gloss.* As in *S. poltaratzskii,* but the green of the back confined to a small median portion only; the other parts of the back suffused with purplish red; scapulars brilliant purplish red, not blue.

The colours of the bill, &c. are not recorded.

Length about 9; tail 2·8; wing 5·4; tarsus 1·2; bill from gape 1·3.

*Distribution.* A rare visitor to India. I have examined a specimen procured by Col. Biddulph at Ráwalpindi, and another from the Gurgaon district, Punjab, procured by Mr. W. N. Chill in February.

This species appears to be a permanent resident in the south-east portion of Europe and in Asia from Asia Minor to Kandahar.

## Genus **SPODIOPSAR** *, Sharpe, 1889.

The genus *Spodiopsar* differs from *Sturnus* in having the covering membrane of the nostril entirely plumed, and in the plumage being without gloss. There is, moreover, no difference in *Spodiopsar* between the summer and the winter plumage. The culmen of the bill is slightly curved and not perfectly straight as in *Sturnus.* The sexes are alike.

The head of *Spodiopsar cineraceus* resembles so closely that of *Sturnus menzbieri* in structure, except in the particulars above noted, that it is not necessary to figure it.

### 535. **Spodiopsar cineraceus.** *The Grey Starling.*

Sturnus cineraceus, *Temm. Pl. Col.* ii, pl. 556 (1835); *id. & Schleg. Faun. Jap., Aves,* p. 85, pl. 45; *David & Oustalet, Ois. Chine,* p. 361.

Poliopsar cineraceus (*Temm.*), *Sharpe, Ibis,* 1888, p. 476; *id. Cat. B. M.* xiii, p. 41.

*Coloration.* Forehead, crown, nape, and sides of neck black, the forehead streaked with white; lores, ear-coverts, and round the eye white streaked with black; chin and throat dark ashy brown with paler and indistinct shaft-streaks; breast ashy, slightly paler than throat; sides of the body and thighs rufous ashy; abdomen and under tail-coverts white; back, scapulars, rump, and upper tail-coverts drab-brown, with a broad white bar across the rump; tail drab-brown, with broad white tips to all the inner webs of the feathers except the middle pair; wing-coverts and tertiaries bronzy brown; remainder of wing blackish, the primaries narrowly, the secondaries more broadly, margined with white on the outer webs; under wing-coverts and axillaries white, a few feathers of the former partially margined with brown.

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* Sharpe (Ibis, 1889, p. 580) has proposed this name for the genus recently named by him *Poliopsar,* a term which had already been given by Cassin to some American birds.

The youngest bird I have seen has the whole plumage russet-brown, the inner webs of the tail-feathers tipped white, the quills of the wing edged with paler brown; the ear-coverts whitish; the chin nearly pure white.

Between this young bird and the adult above described there is every possible gradation of plumage. The nestling is probably streaked below.

Iris brown surrounded by white; bill orange, the tip horny; the base of the lower mandible and the angle of the mouth brownish green; legs yellow (*David & Oustalet*).

Length about 9; tail 2·8; wing 5·2; tarsus 1·25; bill from gape 1·3.

*Distribution.* A collector I employed at Bhámo in Upper Burma in 1880 procured one specimen of this bird about November. I omitted to notice this species in my list of the Birds of Bhámo (Ibis, 1888, p. 70).

The Grey Starling is a common winter visitor to Southern China. It passes the summer in Eastern Siberia, Japan, and Northern China.

*S. colletti* is an allied form without the white rump-band and wanting the white tips to the tail-feathers. The habitat of this species is unknown.

## Genus **STURNIA**, Lesson, 1837.

The genus *Sturnia* contains six Indian species with soft silky plumage. They are more arboreal than the true Starlings, being found constantly on trees, feeding on insects and the nectar contained in flowers; but they also feed on the ground a good deal. They go in flocks and have chattering notes.

In *Sturnia* the sexes are alike, and the young are brown till the first autumn. The bill is shorter than the head, slender, with the culmen slightly curved; the nasal membrane is plumed; the tail is wedge-shaped, the middle pair of feathers being longer than the others.

Five of the species which I include in this genus are placed by Sharpe in the genus *Spodiopsar*, but they appear to me to be absolutely congeneric with the sixth species, *S. sinensis*, which is the type of the genus *Sturnia*.

The Mynas of this genus make their nests in holes of trees, and one species also in the roofs of houses.

### *Key to the Species.*

*a.* Lower plumage more or less rufous.
  *a'*. Upper wing-coverts and scapulars white tinged rosy, contrasting with grey back. *S. sinensis*, p. 526.
  *b'*. Upper wing-coverts and scapulars not white but closely resembling back.

  *a''*. Whole head white .............. *S. blythii*, p. 526.
  *b''*. Whole head grey or grey tinged rufous.
    *a'''*. Winglet and primary-coverts black ........................ *S. malabarica*, p. 527.
    *b'''*. Winglet and primary-coverts entirely or in part white .......... *S. nemoricola*, p. 528.
*b*. Lower plumage pure white.
  *c'*. Under tail-coverts white ............ *S. andamanensis*, p. 529.
  *d'*. Under tail-coverts deep chestnut...... *S. erythropygia*, p. 529.

### 536. **Sturnia sinensis.** *The Chinese Myna.*

Oriolus sinensis, *Gm. Syst. Nat.* i, p. 394 (1788).
Pastor elegans, *Lesson, Voy. Bélanger*, p. 266, pl. 6 (1834).
Sturnia cana, *Blyth, J. A. S. B.* xiii, p. 365 (1844); *id. Cat.* p. 110.
Sturnia sinensis (*Gm.*), *Hume, S. F.* vii, p. 514; *id. Cat.* no. 688 ter; *id. S. F.* ix, p. 118; *Oates, S. F.* x, p. 229; *id. B. B.* i, p. 384; *Hume, S. F.* xi, p. 267; *Sharpe, Cat. B. M.* xiii, p. 68.

*Coloration.* The forehead, crown, lores, round the eye, the chin, rump, and upper tail-coverts rosy ferruginous; the nape and the whole back deep grey; sides of neck, throat, breast, and abdomen grey, lighter than the back; flanks, under tail-coverts, axillaries, and under wing-coverts rosy ferruginous; ear-coverts grey tinged with ferruginous; wings, primary-coverts, and winglet black, the tertiaries suffused with metallic blue, the other feathers edged with the same; wing-coverts and scapulars white, suffused with rosy ferruginous; tail black, the middle pair of feathers narrowly, the others broadly, tipped with ferruginous.

Some time after the moult the beautiful rose-colour fades to white, or is present in only a very slight degree.

Bill blue; the mouth darker blue; iris white; legs plumbeous; claws horn-colour.

Length 8; tail 2·6; wing 4; tarsus 1·1; bill from gape 1·05.

*Distribution.* I procured this species in Lower Pegu in the winter season on several occasions. Hume observed it in Manipur on one occasion, but failed to secure a specimen. It occurs at Singapore and in Cochin China and breeds in Southern China.

*Habits, &c.* Père David states that this species breeds in holes on the roofs of houses. The few specimens I procured in Pegu were feeding on the ground in company with others.

### 537. **Sturnia blythii.** *Blyth's Myna.*

Pastor blythii, *Jerd. Madr. Journ. L. S.* xiii, p. 133 (1844); *id. Ill. Ind. Orn.* pl. 22.
Sturnia blythii (*Jerd.*), *Blyth, Cat.* p. 110; *Hume, Cat.* no. 689; *id. S. F.* ix, p. 228; *Butler, S. F.* ix, p. 237; *Davison, S. F.* x, p. 401; *Barnes, Birds Bom.* p. 257; *Oates in Hume's N. & E.* 2nd ed. i, p. 371.
Temenuchus blythii (*Jerd.*), *Horsf. & M. Cat.* ii, p. 531; *Jerd. B. I.* ii, p. 331.
Poliopsar blythii (*Jerd.*), *Sharpe, Cat. B. M.* xiii, p. 54.

*The White-headed Myna*, Jerd.

*Coloration.* Head, neck, and upper breast pure white; back and scapulars grey; rump and upper tail-coverts rufous grey; wing-coverts brown, edged with grey; primaries black, tipped with grey; remaining quills black, broadly edged with grey; middle pair of tail-feathers hoary grey, narrowly tipped with chestnut, the others more and more tipped with chestnut, the outermost feather being chestnut on fully the terminal half; lower plumage cinnamon-rufous; under wing-coverts and axillaries pale ashy white.

The young bird is plain brown above and paler brown beneath; tail marked with chestnut as in the adult.

Iris greyish white; legs and feet brownish olive; bill blue at base, greenish in the middle, yellow at tip (*Butler*).

Length about 8·5; tail 2·7; wing 4; tarsus ·95; bill from gape 1.

Butler is of opinion that the female of this species differs from the male. The only sexed females in the British-Museum series certainly have brown heads, and so far differ from the males, but one of these female specimens is acquiring pure white feathers on the forehead; and I am consequently of opinion that the sexes are alike when fully adult, and that Butler failed to secure any adult females. I know of no instance amongst the Starlings of the sexes being strikingly different.

*Distribution.* Southern India, and apparently a local migrant. Butler obtained this species near Belgaum from June to October, Davison in the Wynaad in May, and Bourdillon in Travancore in March. It does not appear to be found above about 2000 feet of elevation. It extends east as far as Manjarabad in Mysore.

*Habits, &c.* Breeds in Mysore in April. The eggs measure about 1 by ·71.

### 538. **Sturnia malabarica.** *The Grey-headed Myna.*

Turdus malabaricus, *Gm. Syst. Nat.* i, p. 816 (1788).
Sturnia malabarica (*Gm.*), *Blyth, Cat.* p. 110; *Hume, Cat.* no. 688; *Oates, B. B.* i, p. 387; *Barnes, Birds Bom.* p. 256; *Oates in Hume's N. & E.* 2nd ed. i, p. 372.
Temenuchus malabaricus (*Gm.*), *Horsf. & M. Cat.* ii, p. 530; *Jerd. B. I.* ii, p. 330; *Hume, N. & E.* p. 433; *Anders. Yunnan Exped., Aves,* p. 596.
Poliopsar malabaricus (*Gm.*), *Sharpe, Cat. B. M.* xiii, p. 48.

*Pawi,* Hind.; *Desi-pawi,* Beng.; *Pali-palisa,* Tel.; *Kat-halik,* Assam.

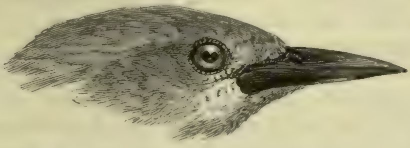

Fig. 156.—Head of *S. malabarica.*

*Coloration.* Forehead and the feathers over the eye whitish;

the whole upper plumage dark grey, tinged with ferruginous on the rump and upper tail-coverts; the shafts of the feathers of the head and neck whitish; winglet, primary-coverts, and all the primaries black, the latter tipped with grey; remainder of the wing blackish; all the feathers tipped and edged on the outer web with grey, this edging becoming broader as the feathers approach the body; the middle pair of tail-feathers grey, the others brown at the base and tipped with dark ferruginous, the tippings increasing in extent exteriorly; cheeks and ear-coverts pale rufous grey; chin, throat, and upper breast rufous grey, the feathers with white shafts; remainder of the lower plumage deep ferruginous, darkest on the under tail-coverts.

The above description applies to the bird when in new plumage; some time after the moult the feathers get worn down and the colours fade, the grey of the upper parts becoming brownish, and the deep rufous of the lower plumage fading to pale rufous.

Bill blue at base, green in the middle, and yellow at the tip; legs brownish yellow, claws greenish; iris light blue.

Length 8; tail 2·7; wing 4·1; tarsus ·9; bill from gape 1.

*Distribution.* The whole Indian Empire east of a line drawn approximately from Dehra to Mount Abu. This species does not appear to be found universally distributed over the country, but to be local and confined to certain favourable tracts. It ascends the Himalayas in summer up to 4000 or 5000 feet. It is absent from Ceylon and the Andamans and Nicobars. It extends into Cochin China.

*Habits, &c.* Breeds in May and June in holes of forest trees. The eggs, from three to five, measure about ·93 by ·7.

### 539. **Sturnia nemoricola.** *The White-winged Myna.*

Sturnia nemoricola, *Jerd. Ibis*, 1862, p. 22; *Hume & Dav. S. F.* vi, p. 390; *Oates, S. F.* vii, p. 48; *Hume, Cat.* no. 688 bis; *Oates, B. B.* i, p. 389; *id. in Hume's N. & E.* 2nd ed. i. p. 373.
Temenuchus nemoricolus (*Jerd.*), *Hume, S. F.* iii, p. 151.
Poliopsar nemoricolus (*Jerd.*), *Sharpe, Cat. B. M.* xiii, p. 52.

*Coloration.* Very similar to *S. malabarica* in general appearance, but after the moult, when the plumage is fresh, the forehead and the crown as far back as the eyes, the chin, throat, and breast are a clear pearly grey; the remainder of the lower plumage a beautiful rosy buff. In adults the winglet, primary-coverts, and the first or bastard-primary are white.

When the plumage gets worn, the feathers of the head and neck become reduced in many cases to mere shafts, and the beautiful rosy tinge of the lower parts gives place to a dull dirty buff. Notwithstanding the similarity which then exists between *S. nemoricola* and *S. malabarica*, the former may always be recognized by the presence of some white on the wing.

Birds which are not adult have only parts of the winglet and primary-coverts white; but, from the very first, one or more white feathers are present on these parts, and these, coupled with the white bastard-primary, will suffice to indicate the species.

The dimensions and colours of the bill &c. are the same as in *S. malabarica*.

*Distribution.* Pegu and Tenasserim down to about the latitude of Muleyit mountain.

*Habits, &c.* Breeds at the same time as *S. malabarica* and lays similar eggs.

### 540. **Sturnia andamanensis.** *The Andaman Myna.*

Temenuchus andamanensis, *Tytler, Beavan, Ibis,* 1867, p. 329; *Ball, S. F.* i, p. 75; *Hume, S. F.* ii, p. 248.

Sturnia andamanensis (*Tytler*), *Walden, Ibis,* 1873, p. 313, pl. xii, fig. 2; *Hume, Cat.* no. 689 ter.

Poliopsar andamanensis, *Sharpe, Cat. B. M.* xiii, p. 47.

*Coloration.* Head, neck all round, and entire lower plumage white, the flanks, vent, and under tail-coverts tinged with buff; back and scapulars pale grey; rump and upper tail-coverts paler grey, faintly tinged with fulvous; wings and tail glossy black, the latter tipped with white, the four middle feathers narrowly, the others more broadly; under wing-coverts and axillaries white.

Legs and feet usually pale yellow, rather a lemon-yellow, but sometimes tinged fleshy; claws horny; bill greenish yellow, the upper mandible from the posterior margin of the nostrils to the gape, and the lower mandible from the gape nearly to the angle of the gonys, smalt-blue; iris from opalescent white to very pale blue (*Hume*).

Length about 9; tail 3·3; wing 4; tarsus 1; bill from gape 1·15.

*Distribution.* The Andamans and Nicobars.

### 541. **Sturnia erythropygia.** *The Nicobar Myna.*

Sturnia erythropygia, *Blyth, J. A. S. B.* xv, pp. 34, 369 (1846); *id. Cat.* p. 110; *Hume, Cat.* no. 689 quat.

Temenuchus (Sturnia) erythropygia (*Blyth*), *Ball, S. F.* i, p. 76.

Temenuchus erythropygius (*Blyth*), *Hume, S. F.* ii, p. 247.

Poliopsar erythropygius (*Blyth*), *Sharpe, Cat. B. M.* xiii, p. 48.

*Coloration.* Resembles *S. andamanensis* and only differs in having the rump, upper tail-coverts, vent, under tail-coverts, and the tips of the tail-feathers deep chestnut.

Legs and feet pale fleshy yellow; bill gamboge-yellow, smalt-blue at base; iris opalescent-white (*Hume*).

Length 9·25; tail 3·25; wing 4·4; tarsus 1; bill from gape 1·2.

*Distribution.* Car Nicobar Island, where one specimen, now in the British Museum, was shot by Mr. V. Ball in March. No other specimen of this bird appears to have been procured by any naturalist since Blyth's type was described.

## Genus **AGROPSAR**, n. gen.

I institute this genus for the reception of *A. sturninus*, which differs from *Sturnia sinensis* in having portions of the plumage glossy, a shorter and more massive bill, a more pointed wing, and a tail which is much shorter and forked. The nasal membrane is moreover nearly bare, being plumed merely at the posterior corner. The sexes are alike.

*A. sturninus* appears to resemble the Mynas of the genus *Sturnia* in habits, feeding both on the ground and on trees.

### 542. **Agropsar sturninus.** *The Daurian Myna.*

Gracula sturnina, *Pall. Reis. Russ. Reichs*, iii, p. 695 (1776).
Sturnus dauricus, *Pall. Acta Holm.* 1778, p. 197, t. vii.
Sturnia daurica (*Pall.*), *Blyth, Cat.* p. 111.
Calornis dauricus (*Pall.*), *Blyth, Cat.* App. p. xx; *Horsf. & M. Cat.* ii, p. 544; *Blyth & Wald. Birds Burm.* p. 91.
Temenuchus dauricus (*Pall.*), *Hume, S. F.* ii, p. 249.
Sturnia sturnina (*Pall.*), *Hume & Dav. S. F.* vi, p. 393; *Hume, Cat.* no. 689 sex; *Bingham, S. F.* ix, p. 192; *Oates, B. B.* i, p. 383; *Sharpe, Cat. B. M.* xiii, p. 71.

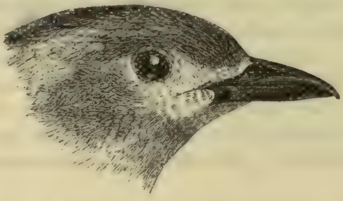

Fig. 157.—Head of *A. sturninus*.

*Coloration.* The whole head, neck, under wing-coverts, and axillaries, and the whole lower plumage except the vent and under tail-coverts grey, paler beneath and darkest on the crown; chin and throat tinged with fawn; vent and under tail-coverts buff; back, rump, and lesser wing-coverts, with a large spot on the crown of the head, metallic purple; a band of buff across the rump; tail metallic green, the outer webs of the outer pair of feathers buff; median wing-coverts black, broadly tipped with white tinged with buff; greater coverts black, edged with metallic green and tipped with buffy white; primary-coverts black edged with metallic green; the scapulars with most of their outer webs buff, and the inner webs black at base and buffy brown at the ends; primaries brown edged and tipped with metallic green, and the first few primaries further edged mesially with buffish brown; secondaries brown, edged with metallic green; tertiaries almost wholly metallic green; the secondaries have a patch of buffish brown near the base of the outer webs.

In some birds the grey of the head and neck is produced on to the upper back and is streaked with brown.

Young birds have those parts which are metallic in the adult plain brown, the patch on the crown being indicated at an early age. The marks on the wings and the buff band across the rump are always as in the adult. Birds of every intermediate form of colouring are to be found.

Legs and feet dull earthy green; the bill varies from black to brown, and is greenish blue or whitish at the base of the lower mandible (*Davison*). Irides dark brown, claws horn-colour (*Bingham*).

Length 7·5; tail 2; wing 4; tarsus 1·1; bill from gape 1.

*Distribution.* The Nicobars; Lower Pegu; Tenasserim from Moulmein to Mergui and the Thoungyeen valley. This species is probably much more widely distributed than the above noted localities indicate, and in winter it may be looked for over the whole of Burma. At this period of the year it is found in the Malay peninsula, Sumatra, Java, and Cochin China. In summer it retires to Eastern Siberia and Northern China.

## Genus **AMPELICEPS**, Blyth, 1842.

The genus *Ampeliceps* contains a remarkable Myna which may be recognized by its bright black and yellow plumage and nude orbits.

In this genus the bill is shorter than the head, wide at the base, and the culmen well curved; the frontal feathers are curly, growing both upwards and inwards and inclining over the base of the bill; a large space round the eye is quite bare. The wing is very long and pointed, and the tail short and square.

The sexes of this species appear to me to be alike. Sharpe is of opinion that they differ; but the series of this bird in the British Museum is not sufficient to enable the question to be settled conclusively either one way or the other. Analogy points to the identity of the sexes, and Hume many years ago stated that they were identical.

### 543. **Ampeliceps coronatus.** *The Gold-crest Myna.*

Ampeliceps coronatus, *Blyth, J. A. S. B.* xi, p. 194 (1842); *id. Cat.* p. 108; *Horsf. & M. Cat.* ii, p. 525; *Hume, N. & E.* p. 436; *Armstrong & Hume, S. F.* iv, p. 335; *Hume & Dav. S. F.* vi, p. 398; *Hume, Cat.* no. 693 ter; *Inglis, S. F.* ix, p. 256; *Oates, B. B.* i, p. 395; *Salvadori, Ann. Mus. Civ. Gen.* (2) v, p. 615; *Hume, S. F.* xi, p. 269; *Sharpe, Cat. B. M.* xiii, p. 116; *Oates in Hume's N. & E.* 2nd ed. i, p. 374.

*Coloration.* Forehead, crown, chin, and throat bright yellow; with this exception, the whole plumage is glossy black; the first six primaries with a patch of white on the inner webs, and the second to the seventh primaries with a yellow patch on the outer webs; in counting these, the first or bastard primary, which is very minute, is not taken into consideration.

The young appear to have the head entirely black.

Bill pale orange, turning to blue at the gape; mouth livid; iris dark brown; ophthalmic skin yellow tinged with orange; legs dull orange; claws dark horn.

Length 8·5; tail 2·4; wing 5; tarsus 1; bill from gape 1·1.

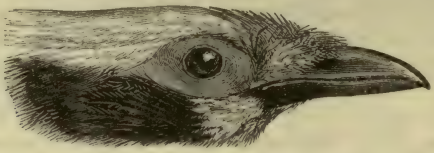

Fig. 158.—Head of *A. coronatus.*

Many birds of this species are met with having the lores and a portion of the cheeks black. These, according to Sharpe, are females. I find, however, that birds exhibiting this character have also black streaks on the throat and crown, and the conclusion I draw is that these birds are immature and in a state of transition from the plumage of the young to that of the adult.

*Distribution.* Cachar; Manipur; Toungngoo; Lower Pegu; Tenasserim from Moulmein to Tavoy. This species extends into Cochin China.

*Habits, &c.* Davison found the nest of this bird containing three young near Tavoy in April in a deep hole of a tree.

## Genus **TEMENUCHUS**, Cabanis, 1851.

With the genus *Temenuchus* we come to a group of Mynas with blunt wings and of more terrestrial habits than the preceding birds.

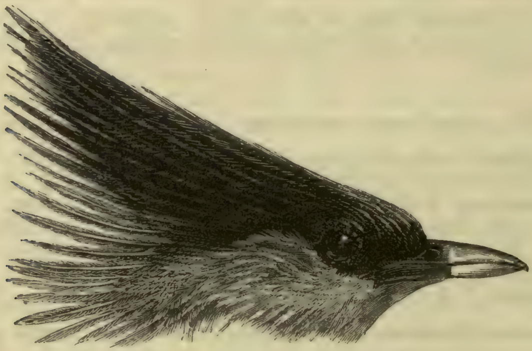

Fig. 159.—Head of *T. pagodarum.*

This genus contains one Myna which is a familiar bird all over India. It is characterized by a very long crest; the bill is about half the length of the head, with the culmen curved; the nasal membrane is plumed and there is no nude skin on the side of the head; the wing is blunt and the tail is slightly graduated; the sexes are alike and the young are brown.

### 544. **Temenuchus pagodarum.** *The Black-headed Myna.*

Turdus pagodarum, *Gm. Syst. Nat.* i, p. 816 (1788).
Sturnia pagodarum (*Gm.*), *Blyth, Cat.* p. 110; *Hume, Cat.* no. 687; *Legge, Birds Ceyl.* p. 677; *Oates, B. B.* i, p. 382; *Barnes, Birds Bom.* p. 256.
Temenuchus pagodarum (*Gm.*), *Horsf. & M. Cat.* ii, p. 528; *Jerd. B. I.* ii, p. 329; *Hume, N. & E.* p. 432; *Sharpe, Cat. B. M.* xiii, p. 73; *Oates in Hume's N. & E.* 2nd ed. i, p. 374.

*Popoya maina, Bamuni maina, Puhaia,* Hind.; *Monghyr pawi,* Beng.; *Pabiya pawi* at Muttra; *Papata gorinki,* Tel.; *Popata pariki, Rawanati,* Tam.; *Martintro,* Port. in Ceylon.

*Coloration.* Head from forehead to nape with crest black; sides of the head, sides and back of the neck, and the whole lower plumage as far as the vent rich buff, the feathers of the back of the neck, throat, and breast much elongated and with the shafts pale; vent, thighs, and under tail-coverts white; whole upper plumage (except the parts already described), the wing-coverts, tertiaries, and secondaries grey, a few of the feathers of the back with buff shaft-streaks; primaries and primary-coverts black, the former tipped with grey; tail brown, broadly tipped with white; the middle pair of feathers wholly greyish brown with black shafts.

The young are buffy brown, somewhat rufous beneath and on the sides of the head; crown of head dark brown.

Bill blue at the base, then greenish, yellow at the tip; irides greenish white; legs bright yellow (*Jerdon*).

Length 8·5; tail 3; wing 4·3; tarsus 1·15; bill from gape 1·05.

*Distribution.* The whole of India proper as far east as the longitude of Calcutta; Ceylon. This species is found throughout the Himalayas ordinarily up to 4000 feet, but it occasionally occurs in summer, as at Gilgit, at 8000 feet. It extends into Afghanistan.

Blyth, probably by some mistake, records this bird from Arrakan, and Jerdon from Assam.

*Habits, &c.* Chiefly a ground feeder. Breeds from May to August, constructing a flimsy nest of grass and feathers in a hole of a tree or a building, and laying from three to five eggs, which measure about ·97 by ·75.

## Genus **STURNORNIS**, Legge, 1879.

The sole member of the genus *Sturnornis* resembles in many respects the Mynas of the genus *Sturnia*, but has a stouter bill, a very blunt wing, and a triangular patch of bare skin behind the eye.

The sexes are quite alike. The habits are said by Legge to be exclusively arboreal, but I imagine that this bird will be found to be in some measure a ground feeder, like other arboreal Mynas.

### 545. **Sturnornis senex.** *The White-headed Myna.*

Heterornis senex, *Temm., Bonap. Consp. Av.* i, p. 419 (1850).
Hetærornis albofrontata, *Layard, A. M. N. H.* (2) xiii, p. 217 (1854).
Sturnia senex (*Temm.*), *Hume, S. F.* vii, p. 409; *id. Cat.* no. 689 quint.
Sturnornis senex (*Bonap.*), *Legge, Birds Ceyl.* p. 680, pl. 28; *Sharpe, Cat. B. M.* xiii, p. 55.

*Coloration.* The whole head, chin, and upper throat white; the whole upper plumage and sides of neck dull black, the feathers of the nape and neck with white shafts; wings and tail glossy black; the whole lower plumage from the throat downwards lavender-grey, the shafts of all the feathers white; under wing-coverts black.

Birds not quite adult have the crown black. The nestling, according to Legge, has the head and hind neck of a dull brown colour with a whitish supercilium and the white shafts on the lower plumage absent.

Iris dull whitish, with a narrow brown inner circle; orbital skin and eyelid dull bluish; gape and base of bill plumbeous blue, the apical half pale bluish brown; legs and feet bluish plumbeous; claws bluish (*Legge*).

Length about 8·5; tail 3·2; wing 4·3; tarsus 1; bill from gape 1·1.

*Distribution.* The mountain forests of Ceylon.

## Genus **GRACULIPICA**, Lesson, 1831.

The Mynas of the genus *Graculipica* may be recognized by the large extent of bare skin on the side of the head, extending from the lores to the ear-coverts. The bill is long and stout, with the culmen slightly curved. The feathers of the forehead are short and inclined backwards.

### *Key to the Species.*

*a.* Bill black; lower plumage white . . . . . . . . *G. nigricollis*, p. 534.
*b.* Bill red; lower plumage vinous.
  *a′.* Lower part of rump ashy brown, like back. *G. burmanica*, p. 535.
  *b′.* Lower part of rump buff, different to back. *G. leucocephala*, p. 536.

### 546. **Graculipica nigricollis.** *The Black-necked Myna.*

Gracula nigricollis, *Payk. Stockholm Acad. Handl.* xxviii, p. 291 t. ix (1807).
Sturnopastor nigricollis (*Payk.*), *Blyth, Birds Burm.* p. 90; *Anders. Yunnan Exped., Aves*, p. 595.
Gracupica nigricollis (*Payk.*), *Hume, S. F.* ix, p. 288; *Oates, B. B.* i, p. 377; *Salvadori, Ann. Mus. Civ. Gen.* (2) iv, p. 602.
Graculipica nigricollis (*Payk.*), *Sharpe, Cat. B. M.* xiii, p. 77; *Oates in Hume's N. & E.* 2nd ed. i, p. 377.

*Coloration.* The whole head above and below white, encircled by a black collar about an inch deep, but varying in extent in different individuals; below this collar a band, confined to the back, of black feathers broadly margined with white; back, scapulars, upper rump, and the longer tail-coverts dark brown, each feather edged paler; lower rump and the shorter tail-coverts white; tail dark brown, very broadly tipped with white; lower plumage, with the exception of the collar, white; under wing-coverts black, tipped with white; primary-coverts pure white; wings and coverts dark brown, each feather conspicuously tipped with white, except the primaries, the tippings to which are minute.

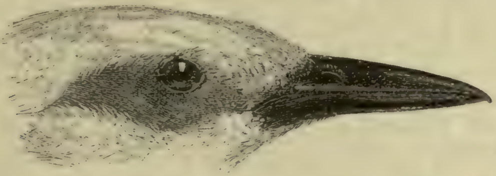
Fig. 160.—Head of *G. nigricollis.*

The young have the whole head, and the part occupied by the black collar in the adult, light brown.

Naked skin round the eye bright yellow (*Tiraud*).

Length 11; tail 4; wing 6·3; tarsus 1·6; bill from forehead 1·4.

*Distribution.* Abundant at Bhámo, in Upper Burma; occurs in Tenasserim, according to Hume, who received several specimens from this locality, through the late Mr. Mandelli. This species is found in Cochin China, Siam, and Southern China.

*Habits, &c.* Dr. John Anderson found this species breeding in May to the east of Bhámo, at Muangla, in a clump of trees. He does not, however, describe the nest nor does he state whether this bird constructs a nest or merely lays its eggs in a hole of a tree.

### 547. **Graculipica burmanica.** *Jerdon's Myna.*

Sturnia burmannica, *Jerd. Ibis*, 1862, p. 21; *Blyth & Wald. Birds Burm.* p. 90; *Hume, Cat.* no. 689 bis; *Oates, S. F.* x, p. 230; *id. B. B.* i, p. 385.

Temenuchus burmanicus (*Jerd.*), *Blanf. Ibis*, 1870, p. 469; *Hume, S. F.* iii, p. 149; *Armstrong, S. F.* iv, p. 332; *Anders. Yunnan Exped., Aves*, p. 596.

Acridotheres burmanicus (*Jerd.*), *Salvadori, Ann. Mus. Civ. Gen.* (2) iv, p. 605.

Poliopsar burmanicus (*Jerd.*), *Sharpe, Cat. B. M.* xiii, p. 45, pl. iv, fig. 1.

*Zayet*, Burm.

*Coloration.* The whole head and upper breast dull white; back and scapulars ashy brown; rump and upper tail-coverts paler; median pair of tail-feathers dark ashy brown, the others blackish, all broadly tipped with white; breast and abdomen vinous; vent and under tail-coverts fulvous white; under wing-coverts and axillaries white; primaries dark brown, tipped paler, and the bases of all pure white; primary-coverts white, with a little black near the bases of the outer feathers; secondaries, tertiaries, and wing-coverts bronze, each feather very narrowly margined with black on the outer web; first primary black.

Iris dark brown; eyelids and naked skin of the head slaty brown; the gape, the basal half of the lower mandible and the base of the upper mandible black; the remainder of the bill red; mouth dark blue; legs and claws dusky orange-yellow.

Length 9; tail 3·1; wing 4·6; tarsus 1·3; bill from gape 1·2.

*Distribution.* Burma from Bhámo down to Rangoon, and eastward to Toungngoo and Karennee*.

*Habits, &c.* Common as this Myna is in many parts of Burma, I failed to secure its nest and eggs, or to notice any indications of its breeding. Jerdon observes that it breeds in holes in old trees.

### 548. **Graculipica leucocephala.** *Hume's Myna.*

Acridotheres leucocephalus, *Gigl. & Salv. Atti R. Acc. Sc. di Tor.* v, p. 273 (1870); *iid. Ibis*, 1870, p. 185.
Sturnia incognita, *Hume, S. F.* viii, p. 396 (1879); ix, p. 295.
Sturnia leucocephala (*G. & S.*), *Oates, B. B.* i, p. 386.
Poliopsar leucocephalus (*G. & S.*), *Sharpe, Cat. B. M.* xiii, p. 46, pl. iv, fig. 2.

*Coloration.* Resembles *G. burmanica*, but has the forehead and crown brownish; back, scapulars, and upper rump ashy black; lower rump buff; hind neck and sides of neck vinous, forming a collar which joins the breast; wings darker, and the primary-coverts entirely white; first primary white. In freshly-moulted birds the forehead and crown are paler than at other times, almost white.

Bill and legs yellow; the former reddish orange at the base; iris brown (*Giglioli and Salvadori*).

Length about 10; tail 3·2; wing 5·2; tarsus 1·35; bill from gape 1·2.

*Distribution.* Said by Hume to have been obtained on the hills between Tavoy and Siam, and there are numerous specimens in his collection from this locality. This species occurs in Siam, and was first found at Thu Duc near Saigon, in Cochin China.

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* *Poliopsar fuscogularis*, Salvadori (Ann. Mus. Civ. Gen. (2) vii, p. 364, 1889), does not appear to be separable from the present species. Thanks to the courtesy of Count Salvadori, I have been able to examine the type, the only specimen known, procured by Mr. Fea in Karennee. This has the chin and throat dark brown and the head and neck brownish, instead of white. These parts are subject to variation in this Myna, and before I can admit *P. fuscogularis* to be a distinct species or even race I should wish to examine more specimens in the same plumage. It must be remembered that Wardlaw Ramsay procured typical *G. burmanica* in Karennee. (See also Sharpe, Ibis, 1889, p. 580.)

## Genus **ACRIDOTHERES**, Vieillot, 1816.

The genus *Acridotheres* contains the typical Mynas, one of the species being universally distributed over the Empire, and a most familiar bird.

In *Acridotheres* the nasal and frontal plumes are lengthened and erect, or slightly curled backwards. There is a large patch of bare skin beneath and behind the eye. The feathers of the crown are elongated and pointed. The bill is shorter than the head, with the culmen curved, the wing very blunt, and the tail considerably rounded. The sexes are quite alike.

The Mynas of this genus are mostly ground-birds; they have a variety of notes, some harsh and some very pleasing, and they breed in holes of trees, houses, and earthen banks, one species occasionally constructing a massive roundish nest in a tree.

### *Key to the Species.*

| | |
|---|---|
| *a.* Under wing-coverts and axillaries white. | |
| *a'.* Primary-coverts entirely white........ | *A. tristis*, p. 537. |
| *b'.* Primary-coverts half black and half white ........................... | *A. melanosternus*, p. 538. |
| *b.* Under wing-coverts and axillaries buff.... | *A. ginginianus*, p. 538. |

### 549. **Acridotheres tristis.** *The Common Myna.*

Paradisea tristis, *Linn. Syst. Nat.* i, p. 167 (1766).
Acridotheres tristis (*L.*), *Blyth, Cat.* p. 108; *Horsf. & M. Cat.* ii, p. 532; *Jerd. B. I.* ii, p. 325; *Hume, N. & E.* p. 428; *Hume & Dav. S. F.* vi, p. 388; *Anders. Yunnan Exped., Aves*, p. 593; *Hume, Cat.* no. 684; *Oates, B. B.* i, p. 379; *Barnes, Birds Bom.* p. 254; *Sharpe, Cat. B. M.* xiii, p. 80; *Oates in Hume's N. & E.* 2nd ed. i, p. 377.

*Maina, Desi-maina*, Hind.; *Salik, Bhat-salik*, Beng.; *Bemni, Saloo*, Chutia Nagpur; *Salonka*, Mahr.; *Gorwantera*, Can.; *Goranka, Gorinka*, Tel.; *Zayet*, Burm.

*Coloration.* Whole head, neck, and upper breast black; lower breast, flanks, sides of abdomen, and thighs rich vinous brown; upper plumage, with wing-coverts, secondaries, and tertiaries brown, tinged with vinous; primaries dark brown, with the bases white; primary-coverts white; tail blackish, all but the median pair of feathers broadly tipped with white.

The young resemble the adult very closely.

Eyelids, the bill, and skin about the eyes yellow; edges of the eyelids black; mouth bluish black; iris reddish brown, mottled with white; legs yellow; claws horn-colour.

Length 10; tail 3·3; wing 5·2; tarsus 1·55; bill from gape 1·3.

*Distribution.* The whole of the Indian Empire except the northern parts of Kashmir and Tenasserim south of Mergui. This species ascends the Himalayas up to about 8000 feet. It has been introduced into the Andamans, but does not extend to the Nicobars. It is found in Afghanistan.

*Habits, &c.* Breeds from March to August, constructing its nest in houses or in holes of trees. The nest is an accumulation of straw, feathers, and other materials, either without shape or slightly cup-shaped. At times this Myna constructs a nest in the branch of a tree. The eggs, frequently five in number, measure about 1·19 by ·86.

### 550. **Acridotheres melanosternus.** *The Common Ceylon Myna.*

Acridotheres melanosternus, *Legge, A. M. N. H.* (5) iii, p. 168 (1879); *id. Birds Ceyl.* p. 670, pl. 29; *Hume, S. F.* viii, p. 72; *id. Cat.* no. 684 bis; *id. S. F.* ix, p. 295; *Sharpe, Cat. B. M.* xiii, p. 83; *Oates in Hume's N. & E.* 2nd ed. i, p. 380.

*Gon kawada, Gon kowdichya,* Cing.

*Coloration.* Resembles *A. tristis.* Differs in being darker, the sides of the body especially being dark vinous; in having the black of the breast produced down on to the abdomen; and in having the outer webs of the earlier primary-coverts black.

Iris variable, pink, brown, and pinkish grey in some, in others whitish mottled with fine specks of dark colour; bill yellow, blackish at the sides near base of lower mandible; legs and feet sickly yellow; orbital skin yellow, extending round the eye, but very narrow above, and hidden by the superciliary feathers (*Legge*).

Of the same size as *A. tristis.*

Specimens of *A. tristis* from Southern India are darker than those from Northern India, and approach the present species in coloration, but no peninsular birds have any black on the primary-coverts.

*Distribution.* Ceylon.

*Habits, &c.* Breeds in Ceylon from February to May. The nest and eggs of this species resemble those of *A. tristis.* The latter measure about 1·13 by ·88.

### 551. **Acridotheres ginginianus.** *The Bank Myna.*

Turdus ginginianus, *Lath. Ind. Orn.* i, p. 362 (1790).
Acridotheres ginginianus (*Lath.*), *Blyth, Cat.* p. 108; *Horsf. & M. Cat.* ii, p. 535; *Jerd. B. I.* ii, p. 326; *Hume, N. & E.* p. 429; *Blyth & Wald. Birds Burm.* p. 89; *Hume, Cat.* no. 685; *Barnes, Birds Bom.* p. 255; *Sharpe, Cat. B. M.* xiii, p. 84; *Oates in Hume's N. & E.* 2nd ed. i, p. 381.

*Ganga maina,* Hind.; *Gang salik, Ram salik,* Beng.; *Bardi-maina,* Nep.; *Lali,* Sind; *Gilyila,* Upper Provinces; *Daryta maina,* Lucknow.

*Coloration.* Forehead, crown, nape, lores, cheeks, and ear-coverts black; the whole upper plumage, neck all round, chin, throat, breast, and sides of the body slaty grey; lesser wing-coverts darker; edge of wing, primary-coverts, and the base of the primaries pinkish buff; remainder of wing black; tail black tipped with buff; under wing-coverts, axillaries, middle of the abdomen, vent, and under tail-coverts pinkish buff.

The young have the head and wings fulvous brown, but do not otherwise differ from the adult.

Bill gamboge; naked skin round eye brick-red; iris deep maroon-red; legs and feet yellow (*Butler*).

Length about 9; tail 3; wing 5; tarsus 1·4; bill from gape 1·1.

*Distribution.* The whole of the northern half of India from the Himalayas to the Nerbudda and Mahánadi rivers, and from Sind to Eastern Bengal, in which latter province this Myna occurs as far east as Furreedpore. It is found in the lower ranges of the Himalayas, and there are several specimens in the British Museum from Mussooree and other parts of these mountains. It is spoken of as migratory in the plains by several writers, but probably by some misapprehension. Blyth recorded this bird from Tenasserim; but he must have been mistaken, as no well-authenticated instance of this species occurring east of the Bay of Bengal is known.

*Habits, &c.* Breeds from April to July, excavating a nest-chamber in the vertical banks of rivers and in the sides of wells. The eggs, four or five in number, measure about 1·05 by ·82.

## Genus **ÆTHIOPSAR**, Sharpe, 1889.

The genus *Æthiopsar* differs from *Acridotheres* in one important particular. The birds of the latter genus have a considerable space on the side of the head bare of feathers; those of the former have the whole side of the head and even the eyelids closely feathered.

*Æthiopsar* contains three species of Myna found in India, one of which is very common and widely distributed, and two are little known and found only on the eastern borders of the Empire. In habits they resemble *Acridotheres*, but the commoner species, *Æ. fuscus*, is confined to forest country as a rule, and is seldom seen near houses.

### *Key to the Species.*

*a.* With no collar on the sides of the neck.
  *a'.* Body-plumage brown; frontal plumes short .............................. *Æ. fuscus*, p. 539.
  *b'.* Body-plumage black; frontal plumes long . *Æ. grandis*, p. 541.
*b.* With a collar on the sides of the neck ...... *Æ. albicinctus*, p. 541.

### 552. **Æthiopsar fuscus.** *The Jungle Myna.*

Pastor fuscus, *Wagler, Syst. Av.*, Pastor, sp. 6 (1827).
Pastor mahrattensis, *Sykes, P. Z. S.* 1832, p. 95.
Acridotheres griseus (*Daud.*), *apud Blyth, Cat.* p. 108.
Acridotheres fuscus (*Wagl.*), *Horsf. & M. Cat.* ii, p. 537; *Jerd. B. I.* ii, p. 327; *Hume, N. & E.* p. 431; *id. & Dav. S. F.* vi, p. 388; *Anders. Yunnan Exped., Aves,* p. 594; *Hume, Cat.* no. 686; *Oates, B. B.* i, p. 380; *Sharpe, Cat. B. M.* xiii, p. 86.

Acridotheres mahrattensis (*Sykes*), *Hume, Cat.* no. 686 bis; *Barnes, Birds Bom.* p. 255; *Sharpe, Cat. B. M.* xiii, p. 89.
Æthiopsar fuscus (*Wagl.*), *Oates in Hume's N. & E.* 2nd ed. i, p. 383.

*Pahari maina*, Hind.; *Jhonti maina*, Hind. in Bengal; *Jhont salik*, Beng.; *Tau zayet*, Burm.

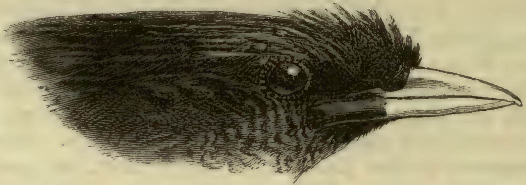

Fig. 161.—Head of *Æ. fuscus*.

*Coloration.* Forehead, lores, nasal plumes, ear-coverts, top of the head, and nape black; back, rump, upper tail-coverts, and scapulars cinereous brown tinged with ruddy; winglet glossy black; primary-coverts white; primaries black tipped with bronze, each feather with a large white spot at the base; secondaries black, broadly edged with bronze on the outer webs; tertiaries and upper wing-coverts wholly bronze-colour; tail brownish black, the middle pair of feathers slightly, the others broadly tipped with white; chin, throat, and breast dark ashy brown, becoming albescent on the middle of the abdomen; under tail-coverts fulvescent white; under wing-coverts black.

Iris bright yellow in Northern India and Burma, grey or pale blue in Southern India; basal half of bill bluish black, terminal half orange-yellow; mouth bluish; legs orange-yellow; claws greenish horn-colour.

Length 9·5; tail 3; wing 4·7; tarsus 1·45; bill from gape 1·25.

*Distribution.* The hilly and well-wooded parts of the whole Empire except the western portion including Sind, Rajputana, and Guzerat. There are also certain tracts in Upper and Central India which appear unsuited to the habits of this species. With these exceptions this Myna is found from the Himalayas to Cape Comorin and throughout the whole region east of the Bay of Bengal, extending some way down the Malay peninsula. It ascends the Himalayas up to about 8000 feet, and is everywhere a resident.

Some ornithologists have sought to separate this species into two races, assigning Wagler's name to the bird with yellow irides, found throughout Northern India and Burma, and Sykes's to the bird with pale blue irides, which is confined to Southern India. I can discover no other differences between these so-called races and consequently I have united them. Sharpe states that *Æ. mahrattensis* is a much larger bird, but as he gives the wing of *Æ. fuscus* as measuring only 4·45 inches, whereas the wing of this bird is not unusually 5 inches and seldom less than 4·7, this character cannot be considered of any value.

*Habits, &c.* Affects forest country, feeding on the ground and having the habits of *Acridotheres tristis*. Breeds from March to July, depositing its eggs in the hole of a tree. The eggs measure about 1·19 by ·83.

### 553. **Æthiopsar grandis.** *The Siamese Myna.*

Acridotheres grandis, *Moore, Horsf. & M. Cat.* ii, p. 537 (1856–58); *Sharpe, Cat. B. M.* xiii, p. 91.
Acridotheres siamensis, *Swinhoe, P. Z. S.* 1863, p. 303; *Wald. in Blyth's Birds Burm.* p. 90; *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Hume & Dav. S. F.* vi, p. 388; *Anders. Yunnan Exped., Aves*, p. 594; *Hume, Cat.* no. 686 quat.; *id. S. F.* ix, p. 285; *Oates, B. B.* i, p. 381; *Hume, S. F.* xi, p. 264; *Salvadori, Ann. Mus. Civ. Gen.* (2) iv, p. 603.

*Coloration.* Upper plumage black; lower plumage blackish brown; under tail-coverts pure white, the bases blackish; tail black broadly tipped with white; wings black glossed with bronze; the primaries with a large patch of white near their bases and the primary-coverts white with black bases. The feathers of the head are very narrow and pointed, and the frontal plumes are about three quarters of an inch long or more.

Iris pale chocolate; bill orange-yellow; legs dusky yellow (*Wardlaw Ramsay*). Iris light reddish to orange-brown or hazel (*Hume*).

Length 10; tail 3·5; wing 5·2; tarsus 1·5; bill from gape 1·3.

*Distribution.* Manipur; the neighbourhood of Bhámo; Karennee; Tenasserim river. Found also in Siam and Cochin China. Moore's types of this bird are labelled as having come from Sumatra, but this locality is probably wrong.

The length of the frontal crest varies considerably. Tenasserim and Karennee birds have the crest of great length, but in Manipur specimens it is much reduced.

*Æ. cristatellus* from China is closely allied, but differs in having the frontal crest of a somewhat different character, the under tail-coverts black with white tips and narrower tips to the tail-feathers.

*Habits, &c.* Hume describes this bird as feeding with *A. tristis* and other Mynas on trees. It apparently breeds in Manipur.

### 554. **Æthiopsar albicinctus.** *The Collared Myna.*

Acridotheres albocinctus, *Godw.-Aust. & Wald. Ibis*, 1875, p. 251; *Godw.-Aust. J. A. S. B.* xlv, pt. ii, p. 200, pl. v; *Hume, S. F.* iv, p. 217; *id. Cat.* no. 686 ter; *Salvadori, Ann. Mus. Civ. Gen.* (2) iv, p. 604; *Oates, Ibis*, 1888, p. 72, pl. i; *Hume, S. F.* xi, p. 262; *Sharpe, Cat. B. M.* xiii, p. 94.

*Coloration.* The whole upper plumage, wings, and tail black, with a slight gloss; the base of the primaries and the tips of the primary-coverts white; the tail tipped with white; a pale buff collar from side to side of neck, interrupted on the hind neck, which is merely streaked with buff; lower plumage greyish black, the feathers of the vent and under tail-coverts tipped with white; under wing-coverts and axillaries black, the latter very narrowly tipped with white.

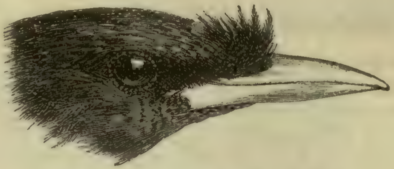

Fig. 162.—Head of *Æ. albicinctus.*

Legs and feet full, sometimes rather deep, wax-yellow; claws a paler or darker brown, whitish horny at tips; bill pale wax-yellow, with a touch of red or orange on the sides of the lower mandible just at its base; iris yellowish or bluish white to pale cærulean blue (*Hume*).

Length about 10; tail 3·2; wing 5·2; tarsus 1·4; bill from gape 1·2.

*Distribution.* Manipur; Bhámo and neighbourhood.

*Habits, &c.* Hume states that this species is found in pairs or in parties up to 80 in number, feeding on the ground or on the insects and nectar in the huge flowers of the cotton-tree. It is said to be locally migratory in Manipur.

## Genus **STURNOPASTOR**, Hodgs., 1844.

The genus *Sturnopastor* contains two very common Mynas, one of which is found in India proper and the other in the Burmese countries. They are almost entirely ground feeders, and they differ from the majority of Starlings in constructing nests on trees and not depositing their eggs in holes in buildings and tree-trunks.

In *Sturnopastor* the sexes are quite alike. The bill is as long as the head, straight, broad, and blunt; the nasal membrane is completely feathered; the feathers of the crown are lengthened and pointed, and the eyelids are perfectly bare. The wing is very blunt, the secondaries reaching nearly to the tip.

### *Key to the Species.*

*a.* No supercilium; feathers of forehead and crown not streaked .................... *S. contra,* p. 542.
*b.* A supercilium; feathers of forehead and crown streaked ...................... *S. superciliaris,* p. 543.

### 555. **Sturnopastor contra.** *The Pied Myna.*

Sturnus contra, *Linn. Syst. Nat.* i, p. 290 (1766); *Blyth, Cat.* p. 109.
Sturnopastor contra (*Linn.*), *Horsf. & M. Cat.* ii, p. 526; *Jerd. B. I.* ii, p. 323; *Hume, N. & E.* p. 426; *Godw.-Aust. J. A. S. B.* xxxix,

pt. ii, p. 110; *Hume, Cat.* no. 683; *id. S. F.* xi, p. 261; *Sharpe, Cat. B. M.* xiii, p. 57, pl. v, fig. 1; *Oates, in Hume's N. & E.* 2nd ed. i, p. 386.

*The Pied Starling*, Jerd.; *Ablak malna*, Hind.; *Ablaka gosalik, Guialeggra*, Beng.; *Venda gorinka*, Tel.

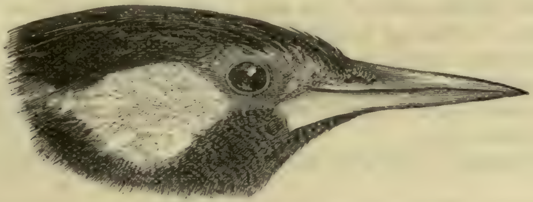

Fig. 163.—Head of *S. contra.*

*Coloration.* Feathers over the nostrils, lores, round the eye, and the ear-coverts white; a few white streaks above the lores; forehead, crown, nape, neck all round, chin, and throat glossy black; back and upper rump dark chocolate-brown, nearly black; scapulars broadly edged with white; lower rump white; upper tail-coverts and tail black; lesser wing-coverts and the inner median coverts white; remainder of wing glossy black; sides of neck and shoulders streaked with vinaceous; lower plumage from the throat downwards pale vinaceous grey; under wing-coverts white.

The young bird has the crown brown, the lower plumage pale vinaceous, the throat and fore neck streaked with brown, and the parts which are pure white in the adult sullied.

Iris yellowish white; orbital skin orange; legs yellowish white; claws light horny; bill, basal half deep orange, rest white; inside of mouth black (*Cripps*).

Length about 9; tail 2·7; wing 4·6; tarsus 1·2; bill from gape 1·4.

*Distribution.* India proper east of a line drawn from Umballa to Hyderabad, in the Deccan, and Masulipatam, ranging to the extreme east of Assam; throughout Bengal, Sylhet, Cachar, and the Khási hills. A specimen from Arrakan in the British Museum is a typical *S. contra.*

*Habits, &c.* Breeds from May to August, constructing a massive shapeless nest of straw, leaves, and feathers on the branch of a tree, generally at no great height from the ground. The eggs, frequently five in number, measure about 1·11 by ·82.

### 556. **Sturnopastor superciliaris.** *The Burmese Pied Myna.*

Sturnopastor superciliaris, *Blyth, J. A. S. B.* xxxii, p. 77 (1863); *Hume, N. & E.* p. 427; *id. S. F.* iii, p. 149; *Hume & Dav. S. F.* vi, p. 387; *Hume, Cat.* no. 683 bis; *Oates, B. B.* i, p. 378; *Hume, S. F.* xi, p. 261; *Sharpe, Cat. B. M.* xiii, p. 59, pl. v, fig. 2; *Oates in Hume's N. & E.* 2nd ed. i, p. 388.

Sturnopastor contra, *var.* superciliaris, *Blyth, Anders. Yunnan Exped., Aves*, p. 594.

*Zayet*, Burm.

*Coloration.* Resembles *S. contra.* Differs in having the forehead and the anterior half of the crown closely streaked with white, the streaks on the sides of the neck and on the shoulders absent or obsolete; in having a well-defined white supercilium joining the ear-coverts; and in the back and rump being paler.

Gape and basal half of bill orange, remainder of bill yellowish white; mouth black; orbital skin orange-yellow; iris pale yellow; legs and claws brown.

Length about 9; tail 2·6; wing 4·5; tarsus 1·2; bill from gape 1·45.

*Distribution.* The eastern portion of the Empire from Cachar and Manipur down to Mergui in Tenasserim.

*Habits, &c.* Breeds in Burma from April to June, constructing a similar nest to that of *S. contra.* The eggs measure about 1·04 by ·77.

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